March 1, 2012 / 12:00-13:30 CURRENT OPINIONS IN CORONARY ARTERY SURGERY – ORAL PRESENTATIONS

OP-001 MIDCAB: OUR INITIAL EXPERIENCE

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OBJECTIVE: Minimally invasive direct coronary artery bypass (MIDCAB) has been an approach known for a long time. However it has been practiced only in a few centers and there has been mixed reports of postoperative outcome in the literature. We present our initial experience with the same.
METHODS: We obtained data on all the patients undergoing MIDCAB over a three year period from April 2008 to July 2011 through our computerised data base, patient records and from the patients' general practitioners. We collected data concerning demographics of the patients, their perioperative characteristics, early and late post-operative morbidity, hospital stay and Major Adverse Cardiac and Cerebrovascular Events (MACCE).
RESULTS: During the study period, 75 patients were taken up for MIDCAB through anterolateral thoracotomy without the use of cardiopulmonary bypass. Their mean age was 64 (range 35 to 83) years and the mean EuroSCORE 2.45. Indications for intervention included angina (70.7%), myocardial infarction (22.7%) and imminent non-cardiac surgery (6.6%). Revascularisation included the left anterior descending (LAD) artery only in 54 (72%), two vessels in nine (12%) and hybrid procedure in six (8%) patients. Actuarial survival and MACCE-free survival at 24-months was 98.1% and 94.5% respectively.
There were six conversions to sternotomy (injury to the LIMA – 1 patient, VF arrest – 1 patient and epicardial adhesions or adipose cover rendering the identification of the mid-LAD artery difficult – 4 patients). Four of these six patients underwent successful anastomosis of the LIMA to the LAD while two patients underwent PCI at a later date. None of the converted patients suffered a myocardial infarction or any other major complications. Most of these conversions were within the first few months and the frequency of conversions to sternotomy has decreased over time.
Other postoperative results are charted (table 1)
CONCLUSIONS:MIDCAB can be performed safely in appropriately selected patients. The rate of postoperative MACCE is very satisfactory. There is a learning curve in adopting the technique. Although challenging, this technique is feasible in experienced hands

Table 1- Intra- and post-operative characteristics

	N or Value	%
Operative Characteristics		
Anterolateral Thoracotomy	69	92.0
LAD only	54	72.0
LAD + D1/OM/Intermediate	9	12.0
Hybrid	6	8.0
Conversion to sternotomy	6	8.0
Early (post op day 0-30)		
Mortality	0	0.0
Re-operation	0	0.0
Atrial Fibrillation	17	22.7
Inotropic Support	10	13.3
Early Wound Infection	5	6.7
Early CVA	2	2.7
Surgical Emphysema	2	2.7
Mean hospital stay (days)	6.18 ± 3.85	
Late (>30 day)		
Mortality	1	1.3
Recurrent angina	1	1.3
Myocardial infarction	1	1.3
Late CVA	1	1.3
Re- do CABG	1	1.3
PCI (following MIDCAB)	1	1.3
PCI (following conversion)	2	2.6
Lung herniation	1	1.3

OP-002 INNOVATIVE RIGID STERNAL CLOSURE - IS IT WORTHWHILE IN HIGH RISK MEDIAN STERNOTOMY?

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OBJECTIVE: Midline sternotomy remains standard technique for access in cardiac surgery. It is associated complications, such as sternal instability, superficial and deep infections, as well as bony nonunion complications leading to enermous heal care cost. We looked for innovative technique to create rigid closure of sternum in high risk median sternotomy. The purpose of this study to evaluate effectiveness of this noval device
METHODS: The Sternal Talon (KLS Martin Group, Jacksonville, FL), a lightweight titanium closure device is designed to approximate the sternum, creating a rigid closure by effectively immobilize sternotomy. Patient selection was limited to patients at high risk for sternotomy complications as per STS national data base criteria.
RESULTS:one hundred and eight high risk patients underwent rigid closure by placement of the Sternal Talon after median sternotomy from April 2010 to October 2010 in our institution. 63 % of patients were male. BMI range from 22 to 57, Diabetes- 55%, COPD - 80%, current smoker- 28% and long term

steroid use were 5%. No device related complications were observed. Post operatively no sternal wound infections, dehiscence or nonunions within 30 days, two patients return to the operating room for bleeding not device related. One postoperative deaths which was not device related or sternal wound problem. In one patient device were removed after 6 month due to discharging sinus.
CONCLUSIONS: This new innovative device shown to be safe and very effective. Sternal Talon for rigid sternal closure may be regarded as an alternative to conventional wire closure in high-risk patients to mitigate wound related morbidity and mortality. Prospective randomized study undergoing in our center to prove the value of the device in terms of sort and long-term stability with lung functions and also cost effectiveness in high-risk patients who undergo cardiac procedure by medican sternotomy.

Strenal Talon

OP-003 COMPARISON OF THE ACCURACY BETWEEN ACEF, PERFSCORE AND STS IN PREDICTING MORTALITY OF ELECTIVE OPEN CARDIAC SURGERY AND THE EFFECT OF INCLUDING AN INTRA-OPERATIVE PARAMETER INTO THE ACEF MODEL

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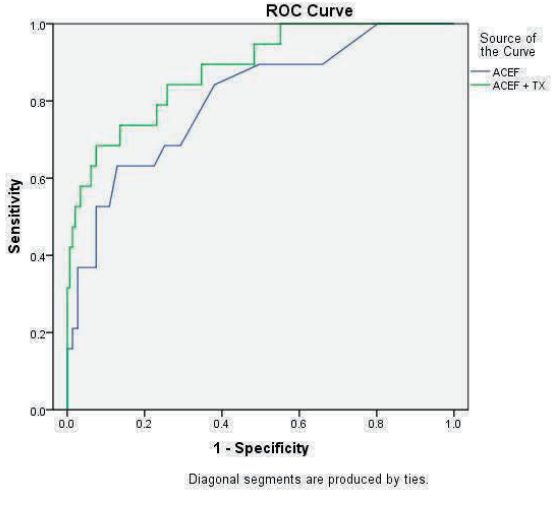
OBJECTIVE: The current risk scoring system benchmark in cardiac surgery is a complex model developed by the American Society of Thoracic Surgeons (Online STS Risk Calculator 2007). Recently, a simpler ACEF model was introduced based only on age, left ventricular ejection fraction and serum creatinine level (Ranucci et al, Circulation 2009). These risk models are based on pre-operative data. Another risk scoring system using ten intra-operative parameters (PerfSCORE) has also been presented (Jegger et al, Perfusion 2007). Thus, the primary objective of this study is to compare the accuracy of these three scoring systems based on our local sample population. Secondarily, the effect of including an intra-operative variable to the most accurate pre-operative model would be investigated.
METHODS: Retrospective data collection from January 2007 to December 2010 in our cardiothoracic unit was undertaken. 166 patients (126 CABG, 28 valves, 3 ASD, 1 VSD, 1 right VOT reconstruction and 7 combined procedures) whom had elective on-pump open cardiac surgery were included in the study. Of these, all had been scored using ACEF and PerfSCORE. However, only 67 had STS scores. Data was analysed using multivariate analysis and the accuracy compared. Univariate and multivariate analyses of the ten intra-operative parameters were performed and any significant variable was integrated into the ACEF model to assess whether it has any effect on the existing accuracy.
RESULTS: Median age was 57 years with male:female ratio of 3:1. Median values of ACEF, PerfSCORE and STS predicted mortality rate were 0.95, 4 and 1.7% respectively. ACEF is more accurate compared to PerfSCORE in all procedures (n=166) and isolated CABG (n=126) achieving 88.6% and 91.3% accuracy respectively. ACEF maintained to have the best predictive accuracy compared to STS and PerfSCORE in all procedures (n=67) and isolated CABG (n=60). This latter result is illustrated in Table 1. Additionally, donor blood transfused (Tx) was noted to exhibit a non-linear relationship to predicted mortality and identified to be the most significant intra-operative parameter contributing to mortality. The Receiver Operating Characteristics (ROC) curve of the ACEF model achieved an area under the curve (AUC) of 0.810. Integration of the donor blood transfused parameter into the model increased the accuracy to 0.883 as illustrated in Figure 1.
CONCLUSIONS: This study has identified the ACEF model as the most accurate risk scoring model in our local population. Inclusion of donor blood transfused parameter into the model can increase its predictive accuracy.

Figure 1



ROC curve of ACEF, before and after inclusion of Tx

Table 1

		Predicted mortality (ACEF)			Predicted mortality (PerfSCORE)			Predicted mortality (STS)		
n=60		Alive	Died	% Correct	Alive	Died	% Correct	Alive	Died	% Correct
Mortality	Alive	52	1	98.1	52	1	98.1	53	0	100.0
	Died	5	2	28.6	6	1	14.3	7	0	0.0
	Overall %			90.0			88.3			88.3
Model summary										
		ACEF			PerfSCORE			STS		
-2 log likelihood		31.431			35.283			42.127		
Cox & Snell R squared		0.178			0.124			0.018		

Comparison of accuracy between ACEF, PerfSCORE and STS in the isolated CABG group (n=60) using multivariate analysis

OP-004 CONCOMITANT PROCEDURE FOR CORONARY ARTERY DISEASE AND PERIPHERAL VASCULAR DISEASE

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OBJECTIVE: Optimum Treatment Method for Coronary & Peripheral Vascular Disease using a conduit from ASC. Aorta optimum treatment method for corornary & peripheral vascular disease using a conduit from ASC Aorta to the peripheral vessel during 2006 to 2011.
METHODS: No of patients – 17 all patıents had cad + pvd all the above patıents beıng subjected to cardıac & perıpheral vessel revascularısatıon
RESULTS: Patıents are relieved from rest pain, angina life style improved free from claudication pain improvement from gangrenous changes non-healing ulcer changed healing signs no limb salvage on follow up – overall improvement in non healing ulcer, gangrenous changes, lıfe style
CONCLUSIONS: Mode of treatment for patient having cad + pvd is very challenging benefits were cad + pvd can be dealt simultaneously pvd complications like non healing ulcer,limb salvage can be avoided all patients showed signs of recovery from gangrene, non healing ulcer, exertional dyspnoea,chest pain, rest pain claudication pain ef improved single sitting for cad + pvd revascularisation is gratifying hospital stay amounts for single surgery (single sitting)cost effective.

OP-006 HAEMODYNAMICS CHANGES DURING OFF PUMP CORONARY ARTERY BYPASS GRAFTING: CAN THEY SUGGEST THE SEQUENCE OF GRAFTING?

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OBJECTIVE: Off pump coronary artery bypass grafting is commonly performed operation for revascularization in coronary artery disease. There still exists the operator's preference on the sequence of grafting the targets. We study the haemodynamic changes during the procedure to observe the effect of grafting each territory.
METHODS: Patients undergoing elective coronary artery bypass grafting in the month of January 2009 were included in the study. 24 cases were operated during this period using off pump coronary artery bypass grafting.Hemodynamic monitoring was done using Flotrac system (Edward Lifesciences) on invasive radial artery monitoring line. The sequence of grafting in the study was Left anterior descending artery (LAD), Posterior Descending Artery (PDA) and Obtuse Marginal (OM) artery. Parameters monitored were Cardiac index(CI), Systemic Vascular resistance (SVR), mean arterial pressure (MAP).
RESULTS:LAD was grated using LIMA in all the patients, PDA was grated in 18 cases while diagonal was grafted in 12 cases and OM in 22 cases. A median of 3 grafts were performed. There was significant rise in cardiac index following grafting of from LAD 2.75litre/m2sec-5 (1.60 – 4.0) to 3.50 (2.70 – 4.20), p=0.004 with improvement in SV from 63 ml (36 – 87) to 80 ml (58 – 104), p=0.02. The SVR dropped significantly from 1127 dynesec-5/m2 (866 – 1527) to 1138 dynesec-5/m2 (917 – 1397), p=0.01. Following graft to major OM the CI increased from 2.7 (2.40 – 3.30) to 3.60 (2.50 – 4.30), p=0.01 and similarly SV improved from 64 ml (54 – 75) to 75 ml (59 – 114), p=0.01. There was drop in SVR from 1229 (11377 – 1520) to 1055 (915 – 1439), p=0.05. However during the grafts to PDA and diagonal artery there was no significant change in CI and SV but the SVR fell in both the instances from 1187 (1015 – 1397) to 1067 (957 – 1232), p=0.02 following PDA and 1315 (1157 – 1436) to 1197 (1117 – 1328), p=0.04 following diagonal artery graft. There was rise in MAP following LAD (p=0.02)

and OM (p=0.03) graft while it was not significant following PDA and diagonal artery graft.
CONCLUSIONS: There was a maximum benefit after LAD graft followed by OM graft. The grafts to PDA and diagonal did not improve the haemodynamics to that extent. The data suggests that LAD should be the first graft followed by major OM and then PDA and diagonal in that order to achieve maximum haemodynamic stability.

OP-007 CONCOMITANT OFF-PUMP CORONARY ARTERY BYPASS GRAFTING RESULTS IN IMPROVED IN-HOSPITAL OUTCOMES FOR PATIENTS WITH ISCHEMIC MITRAL REGURGITATION UNDERGOING SURGERY

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OBJECTIVE: Surgical management of ischemic mitral regurgitation (IMR) has primarily consisted of revascularization with or without the addition of mitral valve repair or replacement. We hypothesize that performing off-pump coronary artery bypass (OPCAB) grafting prior to fixing mitral regurgitation improves in-hospital outcomes for patients with IMR undergoing surgery.
METHODS: From January 2000 through December 2010, a total of 96 consecutive patients with moderate or severe IMR, as determined by preoperative echocardiography, underwent on-pump coronary artery bypass grafting (CABG group, n = 66) or off-pump (OPCAB, n = 30) revascularization with concomitant mitral valve repair or replacement. A retrospective analysis of a prospectively collected cardiac surgery database (PATS; Dendrite Clinical Systems, Ltd, Oxford, UK) was performed. In addition, medical notes and charts of all the study patients were reviewed.
RESULTS: The two groups had similar pre-operative demographics and EuroSCORE risk stratification. The operative mortality for the entire cohort was 9.4%. Patients who underwent OPCAB grafting had a lower operative mortality than CABG (3.3% vs. 12.1%; p = 0.006). The total cardiopulmonary bypass time (82.7+/-34.7 minutes vs.160.7+/-45.2 minutes; p<0.001) and cross-clamp time (49.0+/-22.4 minutes vs.103.4+/-39.5 minutes; p <0.001) were significantly shorter in the off-pump group than in the on-pump group. OPCAB group also had significantly lesser in-hospital morbidity and shorter duration of intensive care unit and hospital stay.
CONCLUSIONS: Our analysis shows that OPCAB grafting compared with conventional coronary artery bypass grafting prior to fixing mitral regurgitation is associated with favorable in-hospital outcomes for patients with IMR undergoing surgery.

OP-008 OFF-PUMP TOTAL ARTERIAL, AORTIC NO-TOUCH MYOCARDIAL REVASCULARIZATION: RESULTS IN 1.409 CONSECUTIVE PATIENTS

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OBJECTIVE: The SYNTAX study detected increased neurological complications after CABG as the only poor major adverse cardiovascular or cerebrovascular event (MACCE) compared to PCI. Manipulation at the ascending aorta by canulation or partial clamping is potentially the major risk factor for these neurological complications. However the impact of total arterial off pump coronary surgery is still limited. This study analyzed the early results of the total arterial, aortic no-touch myocardial revascularization in 1.409 consecutive unselected patients.
METHODS: This retrospective analysis evaluated all coronary patients of a period between January 2007 and December 2010. The patients were operated by the only use of ITA-grafts using standard off-pump stabilizers. In situ and composite arterial grafts (T-grafts) were performed according to coronary morphology and target vessel stenosis. Patients with radial artery revascularization or additional vein grafts were excluded. 18 patients (1.27%) were redo off-pump procedures and 178 patients (12.63%) had emergency indication.
RESULTS: The incidence of cerebrovascular stroke was 0.56% (8 patients).The overall hospital mortality was 1.13% (16 patients), the hospital mortality for the elective patients was 0.78% (10 patients) and for the emergency patients was higher 4.34% (6 patients). Postoperative myocardial infarction occurred in 36 patients (2.55%). 15 patients (1.06%) required a reexploration for bleeding and 7 patients (0.49 %) for coronary bypass dysfunction. The ICU-stay was 1.7±1.3 days and the hospital-stay was 12.3±7.6 days.
CONCLUSIONS: The total arterial off-pump, aortic no-touch myocardial revascularization only with bilateral ITA-grafts allows the reduction of cerebrovascular events and mortality after CABG. The consistent use of this technique demonstrates an absolute no-touch approach of the aorta which can equalize the complication-rate compared to PCI as shown in the SYNTAX- Trial.

OP-009 THE L-HYDRO® PRESERVED VASCULAR BIOPROSTHESIS HEALING EMPLOYED IN CORONARY ARTERY BYPASS GRAFTING: EXPERIMENTAL SHEEP STUDY

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OBJECTIVE: There is no reliable biological or synthetic small-diameter vascular prosthesis for clinical use. We planned this experimental essay in

ovines to study the first 150 postoperative days healing process of a small diameter vascular heterologous bioprosthesis (bovine / porcine internal mammary artery), subjected to an original non-aldehyde preservation method (L-Hydro®), in the revascularization of the circumflex coronary artery.
METHODS: We performed L-Hydro® preserved vascular bioprosthesis coronary artery bypass grafting (CABG) in 25 sheeps: in 13 animals as an extra-anatomic bypass (thoracic aorta–circumflex artery) and in other 12, in anatomic position (ascending aorta–circumflex artery). The operation was carried out under extracorporeal circulation support and cardiac arrest (cold crystalloid cardioplegia). The animals were sacrificed after, at least 150 postoperative days. The L-Hydro® vascular bioprosthesis was then subject to macroscopy and microscopy study.
RESULTS: Three animals suffered early death not related to the graft function. Bioprosthesis macroscopy (22 survivors) revealed:
- 12 grafts (54,5%) with minimal lesions (totally preserved bioprosthesis or isolated tiny thrombus);
- 4 L-Hydro® vascular grafts (18,2%) with moderate lesions (non-obstructive thrombus in up to 1/3 of graft extension);
- 6 bioprostheses (27,3%) with severe lesions (5 partial thromboses affecting more than half of extension's graft and one aneurysmal graft degeneration).
Despite the lesions found, all vascular bioprostheses were patent. The microscopy study revealed:
- Well preserved collagen and elastic fibers structure;
-Complete luminal endothelialization;
- Myofibroblasts groups, interspersed with uniformly arranged actin fibers, lodged in the bioprosthesis media layer.
CONCLUSIONS:- The L-Hydro® vascular bioprosthesis healing process took place with complete inner surface endothelialization lining and fibroblasts embedded deep within the media layer, expressing high biocompatibility degree.
- All L-Hydro® grafts were patent after at least 150 days of implant.

March 1, 2012 / 15:00-16:30 VALVULAR HEART DISEASE IN PERSPECTIVES –ORAL PRESENTATIONS

OP-021 ARTIFICIAL CHORDAE IN MITRAL VALVE REPAIR NEW TECHNIQUE MAKING IT FAST EASY & ACCURATE

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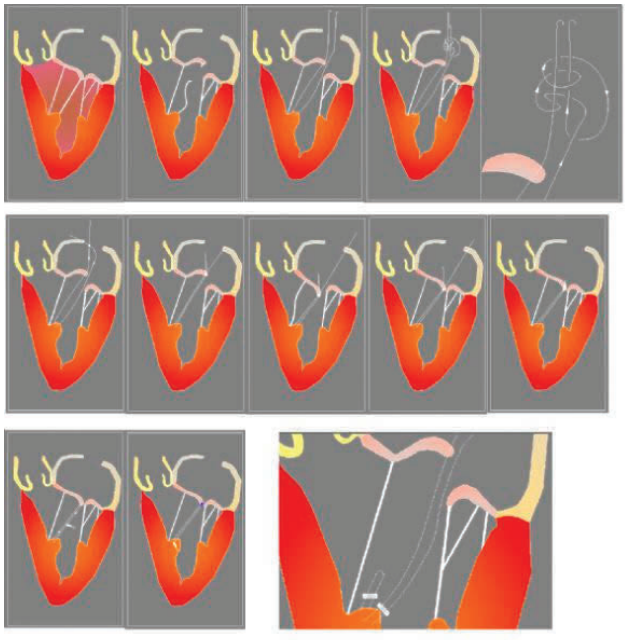
OBJECTIVE: The application of artificial-chordae has become an essential standard tool for aspiring cardiac surgeon acquiring expertise in mitral valve repair.One of the difficulties related with these techniques is the determination of precise length of neo-chord.Several techniques of implantation have been described to overcome this difficulty.We propose a"new technique"to determine accurate height of artificial-chord to correct prolapse using(PTFEGore-tex)sutures with the ability to easily adjust the length of neo-chord(shortening or elongation)on demand and repeated before and after ring annuloplasty to ensure perfect coaptation of leaflets,this technique can also position the knot fastening the artificial-chordae to the papillary muscle,avoiding any side effect on the site of a floating knot.
METHODS: Using 5/0PTFE-suture,we pass the needle through the free prolapsed margin of the leaflet from the atrial to the ventricular side,then the same needle is passed through the fibrous tip of the PM,close to the origin of the ruptured chord without tying the suture.After bringing up the needle from the ventricular cavity,we obtain two suture arms,the first one is free and the second one is passed through the leaflet edge.The two arms are tied in the way of (Safadi-sliding-stitch).To obtain a sliding-knot we must apply an adequate traction on the previous fixed arm and move the knot(pulling up and down)avoiding any tension on the leaflet or the PM. Otherwise the knot is considered tight allowing repeated water-test on demand.
RESULTS: The length of the PTFE-sutures is adjusted by sliding the knot up and down until perfect approximation of leaflets margins is completed(using a repeated water-testing).The sutures are left unlocked until the prosthetic ring has been implanted.Once Ring is implanted:accordingly an artificial chord might become restrictive or elongated.At this point,it can be adjusted again.Once a satisfactory competent valve is achieved,the sliding-stitch is locked easily without shortening the PTFE,obtaining a stable knot.The sutures are then cut,and the knot will finally be positioned on the PM by moving it towards the ventricular cavity,and thus outside the coaptation zone.The PTFE-suture at the point of a free leaflet edge is fixed with(5/0 polypropylene)stitch.The final water-test should demonstrate a competent valve without residual prolapse.
CONCLUSIONS: Throughout this work,we hope to have answered the call to join the continuous search for new solutions to some technical difficulties in mitral repair,especially the best way to obtain the accurate length of neo-chordae.With this new technique,we look forward making the measurement of neo-chordae easier,fast, reliable,and essentially encourage more surgeons to apply mitral valve repair with more confidence.

Safadi Sliding Stitch



consecutive steps to create new chordae in Mitral Repair using the Safadi Sliding Stitch

OP-022 ADEQUACY OF LEAST MINIMAL INVASIVE TECHNIQUE FOR MITRAL VALVE SURGERY

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OBJECTIVE: To compare our operative and early results of mitral valve surgery using least minimally invasive video-assisted mitral valve surgery and standard technique at PSCCH, SA
METHODS: Twenty five patients underwent least minimally invasive mitral valve repair and replacement (n = 25) between April 2010 and April 2011.Patients data, procedures, operative techniques, morbidity,mortality, patient satisfaction, and postoperative charges were calculated, and it was compared to a twenty five (n = 25) patient who underwent the same operation through a median sternotomy
RESULTS: There was no operative mortality in our patients undergoing mitral valve replacement or repair. The operations were carried out with the same accuracy and attention as with the standard technique. There was minimal postoperative bleeding, cerebral vascular accidents, or other major morbidity. no Groin cannulation complications with our technique of cannulation of femoral vein.A comparison of the Least minimally invasive to the standard group, the requirement for blood transfusion was significantly less, patient satisfaction was significantly greater,Postoperative mechanical ventilation time was also less in minimal invasive group (5.5 ± 1.2 vs 7.5 ± 3.2 hours, p < 0.05) Return to normal activity was 4.6 vs 10.4 Wks(p = 0.0002). There were no statistical differences in aortic cross-clamp time, cardiopulmonary bypass time, and total operation time between the two groups.
CONCLUSIONS: Least Minimal Invasive Mitral Valve Surgery(L.M.I.M.V.S) can be performed with acceptable cosmetic and clinical results. It is an adequate alternative to standard median sternotomy for MVS.

March 1, 2012 / 17:00-18:30 TREATMENT OF AORTIC VALVE DISEASE: A NEW COMMON PLATFORM FOR CARDIOLOGISTS AND SURGEONS – ORAL PRESENTATIONS

OP-026 IS THERE A IMPACT ON POSTOPERATIVE MORBIDITY AND LONG TERM SURVIVAL AFTER MINIMAL ACCESS AORTIC VALVE REPLACEMENT? A SINGLE CENTRE STUDY OF 3733 PATIENTS

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OBJECTIVE: Minimally invasive techniques are progressively challenging traditional approaches in cardiothoracic surgery. The aim of this study was to compare outcomes in patients undergoing minimal (MIC) versus conventional (CON) access aortic valve replacement.
METHODS:3733 consecutive patients undergoing primary aortic valve replacement at our institution from 11/94 to 11/10 were reviewed: 873 patients had a MIC access and 2860 a CON access.
RESULTS: Patients in the CON group were significantly older than MIC patients (67±11 vs. 64±13 years, p<0.01), had a lower EF (59±15 vs. 62±13%, p<0.01) and a higher logEuroscore (7.2±9.0 vs. 5.4±6.0, p<0.01). MIC patients remained longer on cardiopulmonary bypass (93±25 vs. 80±26 min, p=0.01) than CON patients. In-Hospital survival rate was 98.4±0.04 (MIC) and 96.5±0.3 (CON; p<0.01). The Survival rate after 13.5 years was 61.3±4.9% (MIC) vs. 46.4±1.7% (CON; p<0.01). Univariate analysis indicated female gender, diabetes mellitus, pulmonary hypertension, COPD, NYHA III/IV, age over 75 years and CON access as risk factors for long term mortality. The multivariate analysis revealed COPD (p=0.01, OR=2.1), age over 75 years (p<0.01, OR 2.1) and female gender (p<0.05, OR=1.8) as independent risk factors for long-term mortality, while MIC access was associated with a significantly lower mortality (p<0.05, OR=0.5). Cox analysis revealed the following predictors for long term mortality: permanent haemodialysis (p<0.01, OR=9.0), preoperative liver failure (p<0.01, OR=3.3), age over 75 years (p<0.01, OR=2.5) and diabetes mellitus (p=0.02, OR=1.7).
CONCLUSIONS: Although patient selection may have influenced some of the observed differences between our patient groups, minimal access surgery appears to be associated with significantly lower postoperative morbidity and superior long term survival.

OP-027 SHOULD MINIMALLY INVASIVE AORTIC VALVE SURGERY (MIAVR) BE THE DEFAULT SURGICAL PROCEDURE FOR ALL FIRST TIME AORTIC VALVE REPLACEMENTS?

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OBJECTIVE:MIAVR has been practiced for a number of years, however it has been particularly adapted recently since the advent of TAVI. We investigated the outcomes following MIAVR compared to conventional aortic valve replacement (CAVR).
METHODS:189 consecutive patients undergoing first time isolated AVR over 6 years under one surgeon were studied. Prospectively collected data were analysed on 76 patients undergoing MIAVR (partial J sternotomy) compared to 113 patients undergoing CAVR. Univariate and multivariate analyses were performed to identify predictors of outcome.
RESULTS:MIAVR were selected due to multiple high co-morbidities (median age of 77 vs. 67years, incidence of COPD 24/76(31.6%) vs. 10/113 (9.7%,p0.04) and extra-cardiac arteriopathy 17/76 (22.3%) vs. 7/113(6.1%) (p0.03). MIAVR had higher mean Logistic EuroSCORE 14.6% vs. CAVR 10.6%,p=0.01. Despite this there was no in-hospital mortality in the MIAVR group vs. 4.4% in CAVR,p=0.01. The incidence of COPD was 31.6% yet there were no cases of chest sepsis vs. 6.1% for CAVR,p0.02. MIAVR was associated with reduced incidence of allogenic blood transfusion(14.5% vs. 30%,p0.001), superficial wound infections (0% vs. 5.3%,p0.02) and there were no strokes. On multivariate analysis predictors for blood transfusion were increasing age(OR=2.2), prolonged bypass time(1.1) and CAVR(OR=2.3). There were no differences in the mean bypass time or cross clamp times.
CONCLUSIONS: We are increasingly using MIAVR for high-risk patients with multiple co-morbidities, especially targeting elderly patients with poor respiratory reserve. Whilst literature so far has failed to support benefits from MIAVR, there is a clear place for it. The technique works well particularly in obese patients (largest in our series 170 kgs). Future use of this technique lends itself to sutureless valve technology and those at high risk of chest infections, bleeding diathesis and wound problems. There is growing evidence that MIAVR should be the default approach to all patients needing aortic valve surgery.

OP-028 A NEW CONCEPT OF STENT: THE MULTILAYER STENT. FIRST HUMAN STUDY IN THORACO ABDOMINAL AND ABDOMINAL AORTIC ANEURYSMS

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OBJECTIVE: Thoraco Abdominal Aortic Aneurysms (TAA) and Abdominal Aortic Aneurysms (AAA) are traditionally treated surgically, but more and more by interventional procedures using endografts or fenestrated grafts with a high technical success rate, but some problems are not solved like protection of aneurysm rupture, endoleaks, neurological complications like paraplegia. We developed a new concept of stent, the Multilayer stent (M.S) to treat these aneurysms and try to avoid some major complications.
METHODS: This M.S is a 3 Dimensional braided tube made of several interconnected layers without any covering. Our earliest tests, through studies as theorical simulation, computerized Fluid dynamics, Molecular Modelization and through in vitro and in vivo tests demonstrate that this MS reduces the velocity in the aneurismal sac up to 90% by modifying the hemodynamic conditions. A saccular aneurysm without collateral branch will thrombose quickly. If a collateral branch is present the flow is directed towards this branch leading to shrinkage of the aneurysm. In fusiform aneurysms the flow is laminated, the vortices eliminated, reducing the risk of rupture. Animal experiments show excellent results.
Moreover, as demonstrated in animal and human studies this M.S preserves the collateral branches allowing the possibility to cover any artery without compromising the flow (renal, digestive arteries, supra aortic vessels …)
RESULTS:6 TAA, 4 AAA (3 extended to both iliac arteries) in 10 very high risk compassionate cases (Male: 9, female: 1, mean age 61,4 y.) were treated with the MS, 23 stents (∅ 12 to 40 mm, L: 8 to 15 cm) were implanted by femoral approach. Technical success in all patients. No periprocedural complications.
6 to 18 months follow up will be presented. All these aneurysms were thrombosed with diameter reduction in some cases. We will discuss the time needed to achieve their exclusion. It seems related to the number and size of the branches within the aneurysms. All the side branches covered by the MS remained patent.
CONCLUSIONS: A new concept of stent, the multilayer stent (without any covering) is developed to treat aneurysm. It laminates the flow inside the aneurismal sac reducing the risk of rupture and allows to cover any artery. It opens a new approach to treat TAA and AAA. The first results seem promising, avoiding some major complications encountered with endografts. A larger study is ongoing.

OP-029 FETO-MATERNAL OUTCOME AFTER OPEN HEART SURGERY DURING PREGNANCY

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OBJECTIVE: Heart disease during pregnancy may be deteriorated and leading surgical intervention. These cardiac surgeries could be accompanied by maternal and fetal morbidity and mortality.This study was conducted to report pregnant women underwent open heart surgery during pregnancy.
METHODS: Pregnant women who need cardiac surgery during pregnancy were referred to our obstetric clinic to follow up until delivery.
RESULTS: Between1999 to 2009, sixteen pregnant women underwent urgent open heart surgery using Cardiopulmonary Bypass.The mean age of women was 27±7 years. Twelve patients presented with prosthetic valve dysfunction (Aorta =5, Mitral =7), while 2 patients had valve endocarditis and 2 cases had myxoma. Five operations were done in normothermic condition, 10 in mild hypothermia and 1 in deep hypothermia. Eleven patients were in 1st trimester of pregnancy, 3 in second trimesters and 2 in third trimesters. There was no maternal mortality. Abortion occurred in 6 women (37.5%).Among aborted women, 5 women underwent cardiac surgery at hypothermic condition.Ten patients delivered at term (7 patients had normal vaginal delivery and the others underwent caesarian section). One neonate was died due to prematurity and very low birth weight. There were no abnormalities in alive neonates.
CONCLUSIONS: The maternal outcome was excellent in present study. It seems that hypothermia may be a risk factor of abortion. We can achieve better fetal outcome using normothermic cardiopulmonary bypass and high blood flow rates. Further studies with larger sample size are needed to confirm this effect.

March 1, 2012 / 12:00-13:30 ASSESSMENTS OF HEART FAILURE – ORAL PRESENTATIONS

OP-030 COMPARISON OF INTRA- AND INTERATRIAL DYSSYNCHRONY IN PATIENTS WITH ISCHEMIC VERSUS IDIOPATHIC DILATED CARDIOMYOPATHY

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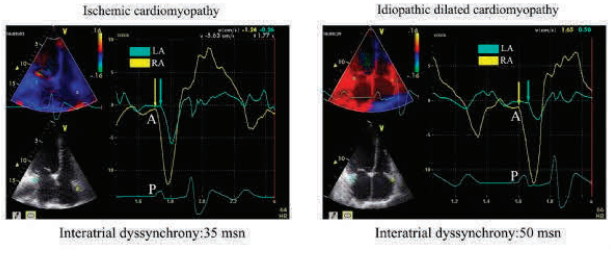
OBJECTIVE: Atrial synchronicity is impaired in patients with heart failure. Because of the fact that idiopathic dilated cardiomyopathy (IDC) and ischemic cardiomyopathy (IC) are two different pathophysiologic conditions, myocardium in each of the former conditions is affected by distinct mechanism. Using color tissue Doppler imaging (TDI), the investigators found that regional ventricular conduction times were prolonged in patients with IDC compared with IC. However, there is no study to compare the atrial conduction properties in the both clinical conditions. We aimed herein to evaluate the intra- and interatrial dyssynchrony in patients with IDC and IC by using color TDI.
METHODS: The study included 30 patients with IDC (7 females; mean age=57.6±12.5 years) and 30 patients with IC (9 females; mean age=58.4±10.0 years). Patients had no previous history of atrial fibrillation. The color TDI measurements were performed below the atrioventricular plane. The timing of atrial contraction was measured as the interval between the onset of P wave on electrocardiogram and the beginning of A-wave on color TDI. The time intervals from the onset of the P wave to the onset of the A wave at the right atrium (P-RA), the interatrial septum (P-IAS), and the left atrium (P-LA) were measured. Dyssynchrony was defined as the respective differences between P-IAS and P-RA (RA dyssynchrony), P-LA and P-IAS (LA dyssynchrony), and P-LA and P-RA (interatrial dyssynchrony). P wave dispersion (PWD) was calculated by using 12 lead electrocardiogram.
RESULTS: In patients with IDC, a significant increase in LA and interatrial dyssynchrony was observed compared with IC patients (20.2±3.5 vs 16.5±3.1, p=0.014 and 47.4±8.3 vs 40.6±6.6 ms, p =0.02, respectively). However, no statistically significant difference was detected in RA dyssynchrony between the groups (28.4±8.5 vs 24.5±5.4, p =0.086). PWD was significantly longer in patients with IDC than that in IC subjects (41.9 ± 8.5 vs 36.5 ± 7.2, p=0.021). There was a significantly positive correlation between the PWD and intra-atrial dyssynchrony (r=0.578, p<0.001) and interatrial dyssynchrony (r=0.601, p<0.001).
CONCLUSIONS: In patients with IDC, LA and interatrial synchronies were significantly impaired compared to patients with IC. In addition, dyssynchrony exhibited a significant correlation with PWD.
Inter atrial dyssynchrony in a patient with with ischemic versus idiopathic dilated cardiomyopathy. Tissue doppler myocardial velocity curves were obtained from the right atrium (yellow) and left atrium (blue).



Atrial conduction times and atrial dyssynchrony

	Idiopathic dilated cardiomyopathy (n:30)	Ischemic cardiomyopathy (n:30)	p
P-RA (ms)	18.8±3.3	17.6±4.3	0.207
P-IAS (ms)	46.8±8.2	41.6±6.5	0.02
P-LA (ms)	65.8±8.2	58.2±8.5	0.02

LA dyssynchrony (ms)	20.2±3.5	16.5±3.1	0.014
RA dyssynchrony (ms)	28.4±8.5	24.5±5.4	0.086
Interatrial dyssynchrony (ms)	47.4±8.3	40.6±6.6	0.02
PWD (ms)	41.9 ± 8.5	36.5 ± 7.2	0.021

OP-036 IMPACT OF BODY MASS INDEX ON LEFT VENTRICULAR DIASTOLIC DYSFUNCTION

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OBJECTIVE: The prevalence of obesity is increasing in the developed and developing world. It is an independent risk factor for heart failure. Left ventricular (LV) diastolic dysfunction has been demonstrated to be a strong predictor of heart failure. In the present study we aimed to assess the impact of body weight on LV diastolic function.
METHODS: The study was conducted on 2228 participants (1424 women, 804 men with a mean age of 49). Traditional and tissue Doppler echocardiographic examination were performed in all of the participants. The demographic and echocardiographic data were compared. Multivariate logistic regression analysis was used to assess the independent predictors of association of LV diastolic function.
RESULTS: Septal E was significantly lower in group 2, and 3 compared to group 1 (p =0.003). Septal A and Septal A' were significantly higher whereas Septal E' and Lateral E' were significantly lower in the groups 2, 3, and 4 compared to the normal weight group (p<0.001). Lateral A', DT, and EJT were significantly higher in obese when compared to the normal weight (p=0.025, p<0.001, and p=0.009, respectively). The E/E' ratio was significantly higher in groups 2, 3, and 4 compared to the Group 1 (p< 0.001). Logistic regression analysis revealed that age, body mass index (OR= 1.060 [95% CI=: 1.040 and 1.080]; p<0.001), hypertension and diabetes mellitus were independent predictors of LV diastolic dysfunction.
CONCLUSIONS: Body mass index is an independent predictor of LV diastolic dysfunction along with age, hypertension and diabetes mellitus.

OP-037 ACUTE DECOMPENSATED HEART FAILURE IS ASSOCIATED WITH SERUM LEVELS OF CERULOPLASMIN

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OBJECTIVE: Ceruloplasmin (Cp), is a serum protein that belongs to the family of α2-globulins and it was increased in patients with heart failure. Aim of the study was to investigate levels of serum Cp in patients with acute decompensated heart failure.
METHODS: Study groups consists of three groups: 50 patients with decompensated (Group 1) and compensated HF (Group 2) (28 female, 22 male, age: 53 ± 11 years); 50 control group of healthy volunteers (Group 3) (25 female, 25 male, mean age: 53 ± 13 years). Demographic, clinical, echocardiographic and biochemical data of all subjects were recorded. Serum Cp levels was spectrophotometrically determined.
Independent student t-test and ANOVA chi-square tests with Bonferoni post hoc analysis were used for group comparisons whereas Pearson's correlation analysis was used to determine the parameters associated with Cp.
RESULTS: The patient group and control group were not different with regard to age, gender, height, smoking, use of beta blockers, lipid profile and in terms of biochemical data (p>0.05). Use of drugs such as beta-blocker, rennin angiotensin blockers, diuretics and digoxin was low in control groups (p <0.05). Body weight, heart rate (HR), systolic blood pressure (SBP) and diastolic blood pressure (DBP), the presence of diabetes, use of acetylsalicylic acid (ASA), diuretics, digoxin, and echocardiographic parameters between groups were significantly different (p<0.05). There was the highest value of ceruloplasmin was significantly increased in Groups 1 (820.8 ± 78.5mg/dl) and 2 (873.5 ± 121.0mg/dl) compared, to Group 3 (640.6 ± 132.4mg/dl) (p<0.001). In the sub-group analysis, this difference was due to the difference between Group III groups I and II whereas no significant difference was present between Groups I and Group II (p>0.05). A positive correlation was found between Cp and female sex, HR, SBP, DBP, ASA and diuretic use, left ventricular systolic and diastolic diameter, mitral regurgitation, and negative correlation with ejection fraction (p <0.05 for all) whereas none of the parameters were independently associated with serum Cp level (p> 0.05).
CONCLUSIONS: Findings of the present study suggest that serum Cp level is increased in both decompensated and compensated HF compared to

controls. Further large scale studies are needed to elucidate the mechanisms of increased Cp in HF.

March 1, 2012 / 13:30-15:00 NON - PHARMACHOLOGIC THERAPEUTIC STRATEGIES IN HEART FAILURE: WHAT IS NEW? - ORAL PRESENTATIONS

OP-038 PREDICTORS OF ADVERS EVENTS AFTER SURGICAL VENTRICULAR RESTORATION DUE TO ADVANCED ISCHAEMIC CARDIOMYOPATHY WITH LEFT VENTRICLE ANEURYSMS

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OBJECTIVE: The objective of surgical ventricular restoration (SVR) is to resect or exclude all akinetic or dyskinetic non-functioning portions of the ventricular cavity and restore the left ventricle (LV) size and shape. The aim of this study was to identify the predictors of advers outcomes after the SVR.
METHODS: Between April 2008 and December 2011, 210 patients affected by ischaemic cardiomyopathy received SVR at our clinic. Inclusion criteria were: no ascociated procedure except CABG, absent to 2+ MR, elective surgery, follow-up two months. A Cox multivariable regression model was selecting the predictors.
RESULTS: Early mortality was 6.19% (13/210). NYHA class and all echocardiographic functional variables significantly improved after SVR at the end of the two months in the alive patients. After the multivariate analysis we identified the predictors: i-EF <25% before surgery, ii-<25% EF restoration after the SVR, iii-<25% increase at the SV, iv-recurrent CHF (NYHA Class>III), v-LVESVI>90 ml/m2, vi-poor sphericity index,vii-akinetic interventricular septum.
CONCLUSIONS: Despite advanced cardiomyopathy, SVR determines LV reduction and improved systolic function. Due to the results of our study predictors of the SVR documented. Also we believed that the restoration of the LV shape improves at the moderate MR.

OP-040 USE OF INTRAAORTIC BALLOON PUMP IN LOW CARDIAC OUTPUT PATIENTS AND INVESTIGATION OF HEMODYNAMIC CHANGES

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OBJECTIVE: Low cardiac output is an important issue after myocardial infarction and after cardiopulmonary bypass surgery. Intraaortic balloon pump support allows better coronary perfusion and hemodynamical stability on treatment of low cardiac output syndrome with medical inotropic treatment.
METHODS: In this study, hemodynamic parameters of 20 patients utilized under intraaortic balloon pump support preoperatively, intraoperatively and postoperatively taken into the study. All patients had high risk preoperatively. 20 patients divided into 2 groups. In group 1, we included patients who had open heart surgery and developed low cardiac output syndrome intraoperatively/postoperatively and implanted intraaortic balloon pump. In group 2, we included patients who had open heart surgery and developed low cardiac output syndrome intraoperatively and implanted intraaortic balloon pump. All patients' heart rate, systolic and diastolic pressure, balon pump augmentation and urine measures were recorded before implantation intraaortic balloon pump, after 5/15/30/60 minutes and 2/4/6/12/24/48/72 hours.
RESULTS: Mean age was 64.5. 15 patients underwent isolated coronary bypass operations and 5 patients underwent coronary bypass + other protocols. All patients had hypotension, tachycardia and low ejection fraction. In this study, most patients had new myocardial infarction and valvular diseases mostly due to recent myocardial infarction. Valvular disases increased risk of low cardiac output syndrome and valvular disases increased requirement intraaortic balloon pump implantation. After implantation of intraaortic balloon pump, cardiac and other organ perfusions are increased. Weaning of cardiopulmonary bypass was better with intraaortic balloon pump. Amount of urine output is increased. Patients implanted intraaortic balloon pump preoperatively, had more effective results than intraoperative or postoperative implantation. Implantation of intraaortic balloon pump had prolonged length of stay. But mortality is decreased on the contrary. Device related complications occured but, intraaortic balloon pump related complication risk did not limited its use.
CONCLUSIONS: Intraaortic balloon pump support is a useful procedure for management of low cardiac output syndrome and high operative risk patients. Practice of intraaortic balloon pump has high complication rate, but benefits are more than injury. So, possible high complication rates is not a handicap for practice of intraaortic balloon pump. If timing of intraaortic balloon pump is preoperative with low cardiac output patients, the benefit is better than practice of intraoperative and postoperative. Because of this, the use of intraaortic balloon pump is a helpfull application to reduce mortality and hospital stay.

OP-042 INTRAOPERATIVE IMMUNOSUPPRESSIVE THERAPY REDUCES COMPLICATIONS AND REJECTION EPISODES AT CARDIAC TRANSPLANT RECIPIENTS

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OBJECTIVE: This study was conducted in donor hearts obtained after cardiocirculatory death (DCD)

to determine the effects of intraoperative anti thymoglobulin (ATG) administration applied during isothermic blood cardioplegia on the graft function and related parameters.

METHODS: Starting from 1st of July 2011 to 30th of November 2011 we analyzed 6 cardiac transplant recipients who admitted to our institution for orthotopic cardiac transplantation. Retrograde isothermic blood cardioplegia infusion via the coronary sinus was started as soon as the donor heart arrived to the operation room. During this procedure a total of 7-10 mg ATG was infused via the cardioplegia canule. Blood samples were taken from the aortic ostium at the beginning of the infusion, before the anastomosis and after the anastomosis. Serum Panel Reactive Antibody (PRA) screening was performed on the preoperative patient serum sample and CD3 positive cell count was analyzed at the three different samples taken from the aortic ostium of the cardiac graft.

RESULTS: Our patients had a mean (SEM) age of 33.8 (6.3) ranging from 15 to 56. All patients had PRA less than 10% except 2 of them. The CD3 positive cell count decrease was more than 20% for all patients (Table 1). Besides these parameters, the inotrophic therapy dose needed and the myocardial pressure (stiffness) were less for these patients when compared with those observed for the patients receiving conventional post-operative immunosuppressive treatment. These patients had less acute rejection episodes than the patients receiving conventional post-operative immunosuppressive treatment (0% vs 16.8% [n=17/101]; $p<0.05$).

CONCLUSIONS: Despite our small sample size, favorable clinical outcomes were observed in terms of less acute-rejection episodes and better graft function at least at the early post-transplant period. They needed less inotrophic therapy and had less post-transplant complications. Intra-operative ATG treatment may have a preventive effect for acute cellular rejection in cardiac transplant patients.

Immunologic Findings

Cases	PRA Class1/Class 2	CD3 Count Preop%/Intraop%/Post op	Acute rejection episode
1	3.5/7.2	1.5/ 0.3/0.3	none
2	8/5.3	3.5/1.1/0.2	none
3	9.1/2	12/6.5/0.1	none
4	3.7/15	23/4.3/2.1	none
5	7.2/5.1	16/2.3/1.2	none
6	4.5/8.2	11.3/2.3/1.2	none

OP-043 THE INCIDENCE OF THE CARDIAC ALLOGRAFT VASCULOPATHY AFTER CARDIAC TRANSPLANTATION

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OBJECTIVE: Cardiac allograft vasculopathy (CAV) is a major factor limiting long-term survival after cardiac transplantation. CAV is an accelerated form of coronary artery disease (CAD) that is characterized by concentric fibrous intimal hyperplasia along the length of coronary vessels. CAV is the leading cause of death after the first year post-transplantation. Our aim is assessing the incidence of CAV after cardiac transplantation in our center.

METHODS: We include 94 of the 107 patients who underwent orthotopic heart transplantation at our center from 1989 to 2011. Thirteen patients were not involved in the study due to early hospital mortality. We routinely analyzed angiograms of our patients and classified coronary artery disease as mild, moderate and severe according to the severity of affected coronary arteries.

RESULTS: By the end of the first and the third years after heart transplantation, coronary artery disease was present in 10.2% (n=10) and 11.9% (n=12) of the patients, respectively. Mean age was 38.7years in the group of CAV. Half of the patients' diagnosis were ischemic dilated cardiomyopathy before heart transplantation. Cold ischemic time was 144.9 ± 67.7 minutes and the total ischemic time was 236.1 ± 61.7 minutes in the patient group who developed CAV. The patients either received medical therapy or coronary stent implantation depending on the severity of the disease. Five patients needed PTCA + coronary stent implantation; two of them needed stent implantation in more then one artery, while three of them needed stent implantation only in one coronary artery. Two of them died during follow-up.

CONCLUSIONS: Before transplantation, preventing endothelial injury at brain death, reducing cold ischemic time and subsequent tissue damage, and improving myocardial preservation during storage and transportation of the graft all aid in post-transplant cardiac function and longevity. Once CAV has been established, treatments such as coronary angioplasty, coronary stenting, and coronary artery bypass grafting offer only palliative solutions. The only true solution for severe CAV is repeat heart transplantation.

OP-044 PERMANENT PACEMAKER IMPLANTATION AFTER CARDIAC TRANSPLANTATION

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OBJECTIVE: We evaluated the incidence of cardiac pacing in our cardiac transplant population and identify characteristics that may predict which patients would require permanent pacing.
METHODS: Between September 1989 and December 2011, 107 patients underwent cardiac transplantation in our hospital. There were 20 women (18.6%) and 87 men (81.4%). Twenty-eight (26.2%) patients underwent biatrial orthotopic cardiac transplantation, 79 (73.8%) patients underwent bicaval orthotopic cardiac transplantation.
RESULTS: Ten patients (9.3%) had got permanent pacemakers before surgery. Seventeen (21.5%) patients needed transient pacemaker support in the bicaval orthotopic cardiac transplanted group, and two (2.5%) of these 17 patients needed permanent pacemaker implantation. On the other hand, 10 (35.7%) patients needed transient pacemaker support in the biatrial orthotopic cardiac transplanted group; and two (7.1%) of these 10 patients needed permanent pacemaker implantation. These results showed us that four patients (3.7%) needed permanent pacemaker implantation. Two of these four patients had got permanent pacemakers previously, one (3.5%) of them was in the group of biatrial cardiac transplanted and the other was (1.3%) in the group of bicaval cardiac transplanted patients. At late follow-up, pacemaker implantation was not needed for patients with rejection or cardiac allograft vasculopathy. Two of those four patients who were implanted permanent pacemakers died in the follow-up, one of them died at the 81st month, the other died at the 79th month after cardiac transplantation. Mean age was 30.5 ± 9.7 years in the pacemaker associated group. This group included both transient and permanent pacemaker implanted patients. Mean cold ischemic time was 126.1±75.4 minutes, mean total ischemic time was 268.9±82.1 minutes in the pacemaker associated group. Mean age was 34.6±12. Mean cold ischemic time was 115.6±64.1 minutes, mean total ischemic time was 254.2±70.2 minutes in the non-pacemaker associated group.
CONCLUSIONS: Surgical technique is a major predictor of permanent pacing requirement after cardiac transplantation. On the other hand requirement for pacing after transplantation was not related rejection or cardiac allograft vasculopathy.

OP-045 EFFECTS AND SHORT TERM OUTCOMES OF PULMONARY HYPERTENSION IN HEART TRANSPLANTATION

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OBJECTIVE: Heart Transplantation remains excellent long term outcomes with end stage cardiac failure. Pulmonary Hypertension is generally observed in patients with heart failure who are being considered for heart transplantation. Fixed pulmonary hypertension has been associated with a higher risk of early post heart transplant mortality. Fixed pulmonary hypertension is therefore considered as contraindication for heart transplantation. However pulmonary hypertension is reversible in many patients by medications and these patients may be treated by transplantation. We want to discriminate the effects and outcomes of pulmonary hypertension in heart transplantaion.
METHODS: Data were collected on45 patients who underwent cardiac transplantation between September 2009 and November 2011. Data collected on recipients include demographics (age, gender), past medical history, echocardiographic pulmonary artery pressure measurement and postoperative hospital mortality and morbidity. Patients whom systolic pulmonary arterial pressure are greater than 45 mm Hg are accepted as pulmonary hypertension.
RESULTS: The follow up period was 30 days postoperatively. Mean age of the patients was 41. Systolic pulmonary arterial pressure was greater than 45 mm Hg in 11patients. Hospital Mortality (30 days) for Pulmonary Hypertensive group was %27.2 Mortality for the non-pulmonary hypertensive group was %9.5. Mean ICU stay is also implied to be higher in pulmonary hypertensive group.
CONCLUSIONS: Pulmonary Hypertension is a major risk factor that increase the morbidity and mortality.Decision of surgery should be made in the light of reversibility of the pulmonary pressure and patient's clinic.

OP-046 KOŞUYOLU EXPERIENCE WITH LEVITRONIX CENTRIMAG VENTRICULAR ASSIST DEVICE

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OBJECTIVE: Mechanical circulatory support devices have been widely accepted as a treatment modality for refractory heart failure in various reasons. Main indications are bridge to heart transplantation in cardiomyopathies, bridge to recovery for postcardiotomy low cardiac output states and cardiogenic shocks for different causes. Destination therapy in patients not a candidate for heart transplantation has gained a limited acceptance. We herein presented 10 patients supported mechanically with Levitronix-Centrimag which has centrifugal pump uses bearingless and magnetically levitation technology.
METHODS: Levitronix-Centrimag short term circulatory support device was implanted in 10

patients between December 2010 and December 2011. Indications was bridge to transplantation due to dilated nonischemic cardiomyopathy in 8 patients and postcardiotomy low cardiac output state in 2 patients. Mean age was 29.1 (14-52). Six were males. Device implantation was performed during cardiopulmonary bypass in 2 postcardiotomy patients. In 8 bridge to transplantation patients, cardiopulmonary bypass didn't require; operations were performed on beating heart. Mechanical support was provided to left heart via right upper pulmonary vein inflow-aorta outflow in 8 and right heart via right atrium inflow-pulmonary artery outflow in 2 patients.

RESULTS: Four patiens died during the support; 2 postcardiotomy patients and 2 bridge to Tx patients. Overall mortality rate was %40. The average duration time was 35.4 (5-96) days. Orthotopic heart transplantation was performed succesfully in 5 patients. Support has been going on in 1 patient. Major complications occured in 2 patients; revision due to bleeding in 1 patient during the mechanical support, thromboembolism in 1 patient soon after heart transplantation. Both patients recovered without any sequela. There was no mechanical failure in any of the patients during the supports. Seven, 30 and 90 day survival was 90%, 60% and 60% respectively.

CONCLUSIONS: Levitronix-Centrimag has satisfactory results in bridge to transplantation. Safety and durability are well without any mechanical dysfunction. They provide effective hemodynamic support for at least 90 days awaiting heart transplantation. We believe that Levitronix-Centrimag short term circulatory support device can be used for indication in brigde to transplantation.

March 1, 2012 / 15:00-16:30 CORONARY ARTERY DISEASES: CLINICAL AND LABORATORY CORRELATES – ORAL PRESENTATION

OP-053 HIGH LEVELS OF SERUM URIC ACID PREDICT SEVERITY OF CORONARY ARTERY DISEASE IN PATIENTS WITH ACUTE CORONARY SYNDROME

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OBJECTIVE: We aimed to elucidate the relation between serum uric acid (SUA) level and severity of coronary artery disease (CAD) in nondiabetic and nonhypertensive patients with acute coronary syndrome (ACS).

METHODS: The study involved 246 patients who had ACS without hypertension and diabetes. All patients underwent coronary angiography on the first day after admission. Severity of CAD was assessed by the Gensini score. Fasting blood samples were drawn for the measurement of biochemical parameters.

RESULTS: One, two and three or more deseased vessels were determined in 87 (35.4%), 55 (22.4%), 104 (42.2%) patients respectively. Hyperuricemic patients had higher gensini score, high number of diseased vessel, critical lessions ($p<0.001$ for all parameters) and totally oclussion ($p=0.022$). Serum uric acid level was significantly associated with number of diseased vessel ($r=0.334$, $p<0.001$). Serum uric acid was an independent risk factor for multivessel disease with univariate analysis (OR:1.47, $p<0.001$).

CONCLUSIONS: High levels of SUA associated with the severity of CAD in nondiabetic and nonhypertensive patients with ACS and it may explain the cardiovascular outcomes of increased SUA levels. It is possible that high levels of SUA can be used as a surrogate marker in patients with CAD for its severity.

OP-054 RELATION BETWEEN MEAN PLATELET VOLUME AND SEVERITY OF CORONARY ARTERY DISEASE IN PATIENTS WITH ACUTE CORONARY SYNDROMES

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OBJECTIVE: Platelets play a central role in the pathophysiology of coronary artery disease (CAD). Increased mean platelet volume (MPV) is an indicator of plaleter function and associated with poor clinical outcome in patients with acute coronary syndrome (ACS). We aimed to evaluate the relationship between MPV and severity of CAD in patients with ACS.

METHODS:A total of 395 patients with ACS were included. Blood samples were evaluated for biochemical parameters and MPV on admission. All patients underwent coronary angiography. Severity of CAD was assessed with Gensini score and Syntax score. A high MPV was defined as a value >= 10.3 fl.

RESULTS: The mean MPV was 8.9 ± 1.3fl. High levels of MPV were associated with Gensini score and Syntax score ($r=0.304$, $p<0.001$ and $r=0.314$, $p<0.001$ respectively), number of diseased vessel (>50%) ($p=0.005$), number of critical lessions (>50% and >70%) ($p=0.028$ and $p=0.020$) and non-critical lessions (<0.001). After multivariate analysis, high levels of MPV were independent predictors of multivessel CAD (OR: 1.773, 95% CI 1.314-2.391, $p < 0.001$) together with age (OR: 1.036, 95% CI 1.003-1.071, $p = 0.033$).

CONCLUSIONS: In patients with ACS, high MPV levels were associated with severity of CAD. It is possible that MPV can be a helpfull marker in patients with CAD for the severity of coronary atherosclerosis.

March 1, 2012 / 17:00-18:30 CONGENITAL HEART DISEASES: MEDICAL AND SURGICAL MANAGEMENT STRATEGIES – ORAL PRESENTATION

OP-058 SURGICAL MANAGEMENT OF AORTIC VALVE PROLAPSE ASSOCIATED WITH VENTRICULAR SEPTAL DEFECTS; LONG TERM RESULTS COMPARING VARIOUS TECHNIQUES IN AORTIC VALVE REPAIR

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OBJECTIVE: To review the long term results comparing the various techniques of aortic valve repair in surgical management of aortic valve prolapse associated with ventricular septal defects.
METHODS: Between June 1992 to December 2009, 79 patients with ventricular septal defects underwent a concomitant aortic valve repair at National Heart Institute. The long term outcome between the various techniques were compared by review of symptoms and severity of valve regurgitation. Worsening clinical symptoms or worsening regurgitation grade on echocardiography requiring reoperation was considered as failure of the repair.
RESULTS: The mean age of patients who had aortic valve repair was 4.7 years. The various repair techniques includes Trussler's repair (54 patients), Commisuroplasty (11 patients), and Valve Plication (14 patients). The overall median follow-up was 7 years (1 month – 14 years). The overall freedom from reintervention for Trussler's repair was 98 % at 1 year and 87.3% at 5 years. The commisuroplasty method had 100% success rate in the first year but was only 85.7% at 5 years follow up. The best results were obtained from the valve plication method with a 100% success rate through out the 5 years.
CONCLUSIONS: Aortic valve repair in patients with aortic valve prolapse associated with ventricular septal defects has shown to have satisfactory freedom from reintervention in the long term follow-up. On comparison of the different valve repair techniques the valve placation method has shown to be more durable.

OP-059 ROSS OPERATION – SOLVED AND UNSOLVED PROBLEMS

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OBJECTIVE: Problem of treatment of progressing heart failure remains unsolved. Most effective method – heart transplantation is unavailable for many patients, because of shortage of donors. Mechanical ventricular assist devices could prolong life of the patients, who suffer from end stage of heart failure.
METHODS: Postoperative and long-term results of 140 patients after Ross operation were reviewed. The age of the patients ranged from 4 to 67 years (mean 26±11). The aim of this study was to evaluate the impact of Vilnius modification on postoperative results, and to assess the long-term complications of Ross procedure.
RESULTS: There were 7 early deaths (5%), but in last series of 70 operations there were no deaths. Vilnius modification of proximal pulmonary homograft anastomosis was effective in reducing operative and postoperative bleeding. During 17 years period of time, there were 1 death and 7 re-operations – 2 for neo-aortic valve insufficiency, because of neo-aorta dilatation, 4 for pulmonary graft degeneration, and for 1 patient it was necessary to replace both valves, because of endocarditis. There were no deaths after re-operations. Echography study revealed some neo-aorta dilatation during the 17 years in majority of patients after Ross operation. The most significant neo-aorta dilatation and higher degree of neo-aortic valve insufficiency has developed in group of patients with prevalence of aortic valve insufficiency before operation.
CONCLUSIONS: Aortic root dilatation and pulmonary homograft degeneration after Ross operation remains the main complication that needs re-operation. Despite re-operations the quality of life is excellent, and the long-term mortality is very low– 1 patient of 140 during 17 years of observation period.

OP-061 IMPACT OF VENTILATOR-ASSOCIATED PNEUMONIA (VAP) ON THE OUTCOME OF CARDIAC SURGERY IN CHILDREN

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OBJECTIVE: The development of VAP affects the surgical outcome and increases intensive care unit (ICU) morbidity and possibly mortality. We aimed to determine the incidence, etiology, risk factors, and outcome of VAP for postoperative pediatric cardiac patients in the Pediatric Cardiac ICU setup.
METHODS: All postoperative pediatric patients admitted to the pediatric cardiac ICU in King AbdulAziz Cardiac Center from March 2010 to August 2010 were included in the study. Data were prospectively collected using a standardized data collection form. Patients with VAP (group 1) were compared with non-VAP patients (group 2) in terms of age, weight, being syndromic, surgical complexity score, duration of mechanical ventilation, evidence of opened chest postoperatively, use of TPN, inhaled NO, post operative chylothorax or phrenic nerve injury and the length stay.
RESULTS: Of the 137 patients who underwent cardiac surgery during the study period, 9(6%) were identified as having VAP (group 1). The 137 patients

included in the study had a total of 306 ventilator days and VAP incidence density rate of 29 per 1,000 ventilator days. With univariate analysis, the main risk factors for the development of VAP after pediatric cardiac surgery were bypass time, the use of TPN and prolong ICU stay ($p < 0.05$). Low body weight, young age, high surgical complexity score, opened sternum postoperatively, associated blood stream infection, use of muscle relaxant were associated with increase trend in VAP but did reach statistical significance. 44% of patients had positive endotracheal aspirate cultures with mainly gram negative organism. Patients with VAP were generally sicker and require more ventilation hours, more ICU time, and more nitric oxide inhalation ($p < 0.05$). The mortality rate in the VAP group was 11% compared with 0.7% in the non-VAP group.
CONCLUSIONS: In our pediatric cardiac ICU, VAP developed in 7% of the children undergoing cardiac surgery, mainly caused by a Gram-negative organism. The main for VAP in the postoperative pediatric cardiac patient were prolonged bypass, the use of TPN and prolonged pediatric cardiac ICU stay. VAP increases morbidity after cardiac surgery in children.

March 1, 2012 /12:00-13:30 CORONARY SURGERY: DEVIL IS IN DETAILS – ORAL PRESENTATIONS

OP-062 D-DIMER: AN EARLY MARKER OF MYOCARDIAL INJURY IN CORONARY BYPASS SURGERY

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OBJECTIVE: The objective of this study was to determine the correlation between cardiac markers and D-dimer levels in myocardial damage secondary to I/R injury in cardiac surgery.
METHODS: Between December 2010 and April 2011, 50 patients undergoing CABG were screened for study and measured the serum levels of CK, CK-MB, cTnI and d-dimer.. Their ages ranged from 41 to 79 years (mean, 60, 80±10, 26 years). Forty-two (%84) were men and eight (%16) were women. Serial arterial blood samples were obtained before surgery and 1, 6, 12, 24 and 48 hours after postoperatively.
RESULTS: The aortic cross clamping (ACC) time ranged from 11 to 85 minutes (mean, 42.10±19.65 minutes). The cardio pulmonary bypass (CPB) time ranged from 19 to 146 minutes (mean, 71.62±31.32 minutes). The increase of CK and CK-MB levels in postoperative 1. hour, 6. hour, 12. hour, 24. hour ve 48. hour were significant ($p<0.01$) when comparing with preoperative levels. Maximum plasma levels of ck-MB were reached postoperative 12 hours. The increase of cTnI levels in postop 1. hour, 6. hour, 12. hour, 24. hour and 48. hour were significant ($p<0.01$) when comparing with preoperative levels. Maximum plasma levels of cTnI were reached postoperative 6 hours. The increase of D-dimer levels in postop. 1. hour, 6. hour, 12. hour, 24. hour and 48. hour were significant ($p<0.01$) when comparing with preoperative levels. Maximum plasma levels of D-dimer were reached postoperative 1 hour.
CONCLUSIONS: Aortic cross-clamping during CPB literally induces inflammation and I/R injury that leads an increase in thrombin levels which eventually give way to the rise in D-dimer levels. In current study, our results indicate that d-dimer levels as well as CK, CK-MB and cTnI levels may be a marker of myocardial damage after aortic cross clamping due to I/R injury. Also, the rise in D-dimer levels at the very early phase may be an early indicator of myocardial injury.

OP-063 DOES PLEUROTOMY HAS ANY EFFECT ON POSTOPERATIVE RESPIRATORY FUNCTIONS AND ON COMPLICATIONS AFTER CARDIAC SURGERY?

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OBJECTIVE: The aim is to evaluate the effects of pleural integrity (intact or opened pleurae) on respiratory system functions after cardiac surgery.
METHODS: In a prospective, open-label, nonrandomized study design, 114 patients were divided into Group 1; intact pleurae (n= 56) and Group 2; opened pleurae (n=58) after surgery. Respiratory rate, heart rate and arterial blood gas values (pH, partial arterial oxygen pressure (Pa02), partial arterial carbon dioxide pressure (PaC02), and arterial oxygen saturation (Sp02)) were evaluated preoperatively and after extubation. Forced expiratory volume in 1 second (FEV1 %), forced vital capacity (FVC %), and FEV1/FVC % were compared preoperatively and on postoperative day 5. Parameters influencing morbidity and use of BIPAP (bilevel positive airway pressure) were recorded.
RESULTS: There were no significant differences in preoperative and intraoperative data ($p>0.05$). There was a significant decrease of FEV1 (%) and FVC within groups in comparison of preoperative and postoperative day 5 values ($p<0.001$, $p<0.001$, respectively) and no difference was shown in FEV1/FVC ratio ($p>0.05$). There were no significant differences between groups on arterial blood gas values at room air before surgery and on postoperative day 1 ($p>0.05$) however, there was significant decreases in PaO2 and SpO2 levels within groups in comparison of preoperative and postoperative day 1 values ($p<0.05$). Postoperative bleeding was less in Group 2 in comparison to Group 1 ($p=0.003$).

CONCLUSIONS: Our data indicate that opened pleura is not associated with higher incidence of pulmonary complications when compared to intact pleura.

OP-064 IN VITRO EFFECTS OF L-CARNITINE ON INTERNAL THORACIC ARTERY AND SAPHENOUS VEIN GRAFTS USED IN CORONARY ARTERY BYPASS SURGERY

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OBJECTIVE: Understanding the mechanisms of cellular events that cause cardiac pathologies accelerated the studies which help to find out reasons of these events. L-carnitine began to play an active role in treatment of cardiac diseases after learning its effects. The aim of this study was to evaluate the in vitro effects of L-carnitine on internal thoracic artery and saphenous vein grafts using tissue bath.
METHODS: Between June 2011 and October 2011, 10 consecutive patients (1 woman and 9 men, mean age 62 years; range 52 to 76) undergoing coronary bypass operation in our clinic. 10 residual parts of internal thoracic arteries and saphenous veins obtained from these patients. These vessels were cut into 2 to 3 mm rings and mounted in organ baths. L-carnitine were added to organ bath solution after the vessels were precontracted with phenylepinephrine.
RESULTS: In this study, on internal thoracic arteries, L-carnitine caused dose dependent relaxation at the concentrations between 10-7 M -10-2,5 M. This dilation was found % 64,26 ±11,1 of submaximally contracted ITA. On saphenous vein grafts, L-carnitine caused dose dependent relaxation at the concentrations between 10-7 M -10-2,5 M and which was found % 41,59 ±11,46 of submaximally contracted saphenous vein. Internal thoracic artery has the higher relaxation response than saphenous vein.
CONCLUSIONS:L-carnitine is used in the treatment of various diseases. We conclude that vasodilation of internal thoracic artery and saphenous vein grafts can be occured with the treatment of l-carnitine as a result of this research. Although the results of this study are encouraging for using L-carnitine in cardiovascular diseases, larger studies are necessary to confirm these findings. Thus, it can be used to decrease perioperative morbidity and mortality if long term studies provide better graft patency at late period.

OP-065 HOW DID THE CARDIOPULMONARY BYPASS SURGERY EFFECT THE LEVELS OF CERULOPLASMINE AND OXIDATIVE STRESS ?

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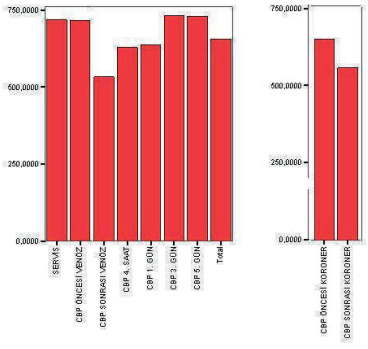
OBJECTIVE: The current study was designed to establish the relationship between cardiopulmonary bypass with ceruloplasmin levels before,during and postoperative period, in coronay artery patients. we known tahat the ceruloplasmin related with oxidative stress.
METHODS: The study group consisted of 32 consecutive patients who were hospitalized for elective coronary by pass surgery valvular procedures were excluded, as well as patients undergoing emergency procedures.Blood samples were drawn for biochemical analysis from cubital vein in service, before the induction of anesthesia (before cardiopulmoner by pass),after cardiopulmoner bypass,postoperative 4th hours,postoperative 1th. day,postoperative 3th. day, postoperative 5th. day. Peroperative from coronary sinus blood samples were taken before and after cardiyopulmonary baypass. The blood samples were kept at room temperature for 30 min and then separated from the cells by centrifugation at 3000 rpm for 5 min. Serum samples were stored at -80 °C until the day of biochemical analysis.Blood samples were obtained following an overnight fasting state. The enzymatic activity of Cp was measured according to Erel's method. Using this assay, ferrous ion is oxidized to ferric ion via ceruloplasmin ferroxidase activity. The results are expressed as units per gramprotein (U/L).
RESULTS: There was a reduction immediately after cardiopulmonary bypass,there was smilar reduction in four hours after cardiopulmonary bypass, there was a similary reduction in One day after surgery, there was a similar reduction in all values, which can be ascribed to a direct impact of hemodilution during CPB and the otherhand postoperative 3.day and 5. day the ceruloplasmine level increased before operation level. There were significant changes ceruloplasmine concentrations at time postoperative,postoperative 4. hour and postoperative 1. day points. There were no significant changes ceruloplasmine at postoperative 3. day and 5. day time points. In the coronary sinus blood samples there were significant decreased of ceruloplasmine levels(Figure 1).
CONCLUSIONS: The present study demonstrates marked differantial changes in preoperative, operative, and postoperative ceruloplasmine level. Many investigators have reported that CABG leads to an increased oxidative stress. In our study oxidative stress continues until the third day. Myocardial oxidative stress was clearly in operation. Ceruloplasmine could be one of the parameters to evaluate the cardiopulmonary bypass-associated inflammatory and oxidative stress response.

Figure 1



OP-066 IN CORONARY ARTERY BY-PASS GRAFT SURGERY, EVALUATION WITH ISCHEMIA MODIFIED ALBUMIN LEVELS OF MYOCARDIAL INJURY

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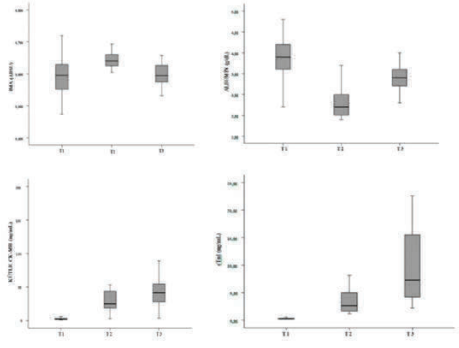
OBJECTIVE: Detection of myocardial injury during coronary artery bypass grafting (CABG) is a critical challenge. There are factors influencing the structure of albumin such as hypoxemia, acidosis, production of free oxygen radicals and deterioration of the membrane integrity. The newly formed damaged albumin is called as ischemia modified albumin (IMA). It has been reported that IMA concentration rise immediately after ischemia and return to baseline values in 6 hours. We have planned to use IMA as a biomarker for myocardial ischemia in CABG and to conclude its diagnostic value in ischemia-reperfusion related oxidative stress both peri- and postoperatively in comparison with other markers (creatinine kinase MB and troponin I).
METHODS: Thirty randomized cases of isolated CABG were included in the study (four females and 26 males). Mean age for male patients was 63,8 ± 8,3 and 58,5 ± 3,4 for females. Blood samples were obtained after anesthetic induction, immediately before the onset of the cardiopulmonary bypass (CPB) (T1), after cessation of the CPB (T2) and at the end of the first hour in the intensive care unit (ICU) (T3). CK-MB, IMA, albumin and troponin I levels were measured.
RESULTS: Typically, all biomarkers were elevated after ischemia-reperfusion injury. IMA values were 0.595 ± 0.051 ABSU, 0.639 ± 0.049 ABSU and 0.589 ± 0.47 ABSU respectively. There was significant difference of IMA levels between three groups (p=0.000). The differences between T1-T2 and T2-T3 were significant (p= 0.002, p= 0.001), but it was non-significant between T1-T3 (p= 0.899). Simultaneously detected albumin levels were independent from IMA levels.
CONCLUSIONS:IMA levels increase after isolated CABG. But its routine use to detect the severity of ischemia has to be proved with further clinical investigations.

IMA, albumin, CK-MB and cTnI ratios



OP-067 THE EFFECTS OF SALINE AND LACTATED RINGER'S SOLUTION USAGE ON ENDOTHELIAL DAMAGE IN PREPARATION OF SAPHENOUS VEIN

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OBJECTIVE: The success of coronary artery surgery depends on existence of long term graft patency. The most important reason for graft impatency seems to be the endothelial injury. This injury can occur due to surgical trauma, usage of improper solutions for grafts and long time stay away from the body environment.
METHODS: The aim of this study is to reveal endothelial injury levels of saphenous veins as bypass grafts which are sinked into lactated ringer or saline solutions until surgical usage. Ten patients were studied between May-June 2011. The saphenous vein samples were divided to ten parts and studied in five groups. These samples were prepared to be observed histopathologically and biochemically.
RESULTS: Histopathological (light microscopic evolutions), immunohistochemical (nitric oxide synthesis, CD34 reactivity)and tunel studies revealed an increase the level of endothelial injury in control, 15 lactated ringer, 15 saline, 45 lactated ringer, 45 saline groups consecutively. Increased levels of nitric oxide in groups compared to control group (p<0,05), higher catalase levels in control group, decrease levels of superoxide dismutase was detected in proportin to time and clinically increased malondealdehite levels were detected in biochemical parameters.

CONCLUSIONS: As a result, we have the opinion that to decrease endothelial injury of saphenous veins which are prepared by conventional methods, the most proper preservation solution is lactated ringer solution with heparin. Implantation of the saphenous vein graft should be within 15 minutes of harvesting, by this way providing medial and intimal protection of the grafts, early thrombosis and late term subendothelial fibromuscular hyperplasia and atherosclerosis is prevented, so that early and late onset greft failure is prevented.

OP-068 A SEARCH ABOUT MYOCARDIAL PROTECTION AND EFFECTSON MYOCARDIAL FUNCTIONS BY USING CARDIOPLEGIA WITH OR WITHOUT GLUTAMATEASPARTATE

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OBJECTIVE: Changes are made in order to increase myocardial protection by adding insulin, nicotine, amid adenine dinucleotide (NAD), glutamate aspartate e.g. into present cardioplegic solutions. Different methods as via coroner arteries (anterogradely), coronary sinus (retrogradely) or simultaneously are also developed. The aim of this study is to investigate the protective effects of Glutamate Aspartate which added into the Cardioloplegic solutions.
METHODS:28 patients, who underwent coronary artery by pass grafting surgery, have been analyzed. They were divided into two groups. Standard cardioplegic solution was given to the first group. Cardioplegic solution with glutamate asparte was given to the second group. Cardiac damage markers as CK, CK-MB, Troponine I, LDH, AST, C Reactive Protein (CRP) and ProBNP are checked preoperatively, perioperatively and postoperatively. Also patients' cardiac output(CO), cardiac index (CI) and ejection fraction (>EF) were evaluated preoperative, perioperative (after decanulation), postoperative first hour, first day, second day. The effects on the cardiac performance of cardioplegic solutions with or without glutamate aspartate was compared.
RESULTS: In conclusion, it was observed that patients in group 2 (glutamate aspartate group) exposed better cardiac performance, needed lesser positive inotropic support than the patients in group 1. Also there was statistically significant difference between the two group in respect to pre and postoperational CO, CI, and ejection fraction (P<0,05). Although there was no statistically significant difference between 2 groups in respect to cardiac damage markers, high levels was observed in group 1.
CONCLUSIONS: In conclusion, we demonstrated an improvement in myocardial protection with the addition of glutamate aspartate into the cardioplegic solution. Also addition of glutamate aspartate led to a reduction in the requirement of positive inotropic support during perioperative and postoperative period.

OP-069 PRIMARY ELECTIVE CORONARY ARTERY BYPASS GRAFTING IN PATIENTS WITH POOR LEFT VENTRICULAR FUNCTION

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OBJECTIVE: Coronary artery bypass grafting in patients with poor left ventricular dysfunction is still a debated issue, but improvements in myocardial preservation techniques have significantly lowered the mortality rate in such patients. Ejection fraction is usually measured by echocardiography and is a clinical parameter that shows the inotropic situation of heart. A well-functioning heart should pump more than %50 of the volume in it, low ejection fraction is considered below %35. Cardiac surgery is considered as high risk in patients with low ejection fraction, increasing the probability of arrhytmia and sudden cardiac arrest. In this study, we analysed our primary elective coronary artery bypass surgery experiences in patients with poor left ventricular function.
METHODS: The datas are collected retrospectively from 63 patients with poor left ventricular function undergoing primary elective coronary artery bypass surgery between January 2002 and January 2011. Preoperative echocardiography and cardiac catheterization were performed in all patients. Comorbidities such as diabetes mellitus, hyperlipidemia, peripheral arterial disease, chronic obstructive pulmonary disease, chronic renal failure, hypertension, postoperative inotropic and intraaortic balon pump requirements were noted.
RESULTS: From 63 patients with low ejection fraction; 52 were male and 11 were female. The mean age was 62.2±9.2 (31-78). Additional disorders related with the study group were shown at Table 1. Postoperative intra-aortic baloon pump was required in 6 (9.5%) patients. Total bypass time was 111±36.6 minutes, cross clamping time was 59.9±21.6 minutes. Average grafts used was 3.4±0.9 (2-6), left internal mammarian artery was used in 55 (87.3%) patients. Postoperative atrial fibrillation developed in 20 (31.7%), stroke developed in 3 (4.8%), renal failure requiring hemodialysis developed in 2 (3.2%) and temporary pacemaker used in 2 (3.2%) patients. Hospital mortality rate was %3.2 (n= 2).
CONCLUSIONS: Appropriate surgical approaches to the coronary heart disease patients with poor ventricular function manifest acceptable outcomes. Surgical revascularization by multivessel bypass grafting can be performed safely, with satisfactory hospital mortality.

March 1, 2012 / 15:00-16:30
NEW STRATEGIES IN CORONARY BYPASS SURGERY - ORAL PRESENTATIONS

OP-081 COMPARISON OF THE EARLY POSTOPERATIVE PERIOD OF THE PATIENTS WHO UNDERWENT CORONARY ENDARTERECTOMY WITH THOSE WHO DID NOT

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OBJECTIVE: The aim of this study was to reveal the early post-operative results, the effects of co-morbid factors and the effects of coronary endarterectomy on morbidity and the mortality associated with concommitant coronary endarterectomy and coronary artery bypass surgery.
METHODS: Files of 2758 patients that underwent coronary endarterectomy and patchplasty during coronary bypass surgery between 1984-2008 were collated. 587 of the files containing relevant data were involved in the study. The control group consisted of 1814 patients who had only undergone coronary artery bypass surgery. 1399 (% 77,1) of the patients in the control group and 510 (% 86,9) of the patients in the endarterectomy and patchplasty group were male.The mean age was 59,6±11,2 in the control group and 56,4±10,1 in the other group.
As well as the difference in operative and postoperative measurements between the two groups, the differences between postoperative MI and rhythm disturbances, entubation periods (in hours), weaning from chest tubes (in days), intensive care unit and hospital staying periods (in days) and any possible complications were also studied.
358 open and 274 non open coronary endarterectomy procedures were included in this study. The most bypassed artery was the right coronary artery.
RESULTS: When the postoperative complications were compared, the study group had a higher rate of preoperative MI (p = 0.006), IABP requirement (p <0.001), ICU (p <0.001) and hospital (p <0.001) complications than the control group. The total intubation time was significantly less in the study group when compared to the control group (p <0.001). Similarities in postoperative drainage volumes existed between the two groups (p=0,151). The length of hospital and intensive care unit stay was longer in the study group than in the control group (p<0,001). There was no statistically significant difference in the longevity of intensive care unit stay, intensive care and hospital complications and preoperative mortality in the groups that underwent bypass surgery alone when compared to the group which underwent CPB during bypass surgery (p>0,05). In the control group, intensive care complications were observed in 13 patients (%0.7), whereas 17 patients (%2.9) in the experiment group were affected.
CONCLUSIONS: Although coronary endarterectomy has been shown to increase the rate of the complications in various studies, this procedure is essential in patients who require complete revascularization.

OP-084 ROUTINE PREOPERATIVE USE OF ENOXAPARIN DOES NOT INCREASE BLEEDING NOR TRANSFUSION IN SCHEDULED CORONARY BYPASS SURGERY

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OBJECTIVE: Low density molecule heparins are frequently used in acute coronary syndromes.There are some conflicting studies showing that whether preoporative use of them increase bleeding or does not influence.We consider that use of low molecule heparins in elective coronary surgery preoperatively does not increase the risk of bleeding, reoperation due to hemorrage or the use of blood or blood products.In this study, the effect of low molecule heparin(enoxaparin) on the patients undergoing elective coronary surgery has been negotiated.
METHODS:150 consecutive patients used preoperative enoxaparine and undergoing coronary bypass surgery were included the study group.The group was compared with another control group of consecutive 150 patients who did not use preoperative enoxaparine in terms of postoperative total bleeding amount, blood products used, reoperation number, gastrointestinal bleeding, frequency of mediastinitis and mortality.
RESULTS: There was no significant statistical difference between the two groups in terms of total bleeding amount,the number of blood products used,reoperation number, gastrointestinal bleeding, subcutaneous infection or mediastinitis and mortality.
CONCLUSIONS: Enoxaparin is a low density molecule heparin, easy to use and relatively cheap.It is commonly used in profilaxis and treatment of deep venous thrombosis and acute coronary syndrome.It is contraindicated in renal insufficiency since it is eliminated and excreted via kidneys.There was no patient having had less than 30 ml/per min creatinine clearence in our study group so that there needs to be additional trials in patients with renal insufficiency.Enoxaparin and other low molecule heparins are used at accelerating pace in cardiologic interventions and cardiovascular surgery.Even though there has been continuing debate that there are various studies that whether or not they increase the risk of bleeding in patients with acute coronary syndrome prepared for surgery is uncertain.We believe that enoxaparine does not enhance the risk of bleeding in elective coronary surgery candidates if used 8 hours earlier from surgery
time.

OP-085 THE EFFECTS OF LEVOSIMENDAN ON CARDIAC FUNCTIONS IN PATIENTS WITH LEFT VENTRICULAR DYSFUNCTION WHO WILL UNDERGO CORONARY ARTERY BYPASS SURGERY

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OBJECTIVE: Positive inotropic agent support is frequently required to wean subjects with left ventricular dysfunction from lung-heart machine. Levosimendan is an agent that increases myocardial contractility without increasing myocardial oxygen demand. This action is done without a rise in intracellular calcium. The objective of this thesis is to emphasize the favorable effects of levosimendan on left ventricular dysfunction.
METHODS:A total of 30 patients with an ejection fraction < 35 % and would undergo coronary artery bypass surgery were assigned into two groups. Levosimendan infusion was started at a dose of 0.2 µgr/kg/min 15 minutes before weaning from cardiopulmonary bypass and continued for 24 hours after the end of cardiopulmonary bypass for patients in Group 1, whereas salin was infused at equivalent dose to levosimendan for the patients in Group 2. Operative notes, cardiac hemodynamics on postoperative Day 1, 2, 4 and 6, and ejection fraction on postoperative Day 6 were recorded.
RESULTS: Cardiac volume, left ventricular stroke work index, heart rate were observed at high levels in levosimendan group rather than control group; in contrast, mean arterial pressures central venous pressure, pulmonary and systemic vascular resistance were observed at low levels in control group rather than levosimendan group. No differences were found between groups in view of hospitalization time, time spent in intensive care unit and postoperative mortality and morbidity. Number of patients given positive inotropic agent was found to be higher in placebo group. Ejection fraction measures, performed on postoperative Day 6, were high in levosimendan group rather than placebo group.
CONCLUSIONS: Levosimendan can be used as an alternate to traditional inotropic agents for the patients who have left ventricular dysfunction and will undergo coronary artery bypass surgery.

OP-086 COMPARISON OF NASOTRACHEAL ASPIRATION AND BRONCHOALVEOLAR ASPIRATION IN PATIENTS WITH PULMONARY COMPLICATION AFTER OPEN HEART SURGERY

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OBJECTIVE: After open heart surgery, patients are carried into intensive care unit with mechanical ventilatory support. One of the complications that can develop in these patients is pulmonary dysfunction. It is usually due to bronchial secretions. These secretions can be removed from the bronchial structures with the help of nasotracheal aspiration or flexible bronchoscope.
METHODS: Between January 2010 and December 2010 in our clinic, 20 patients who went under elective primary coronary artery bypass grafting surgery by cardiopulmonary bypass and developed pulmonary complications postoperatively, were divided into two groups. For group one (group 1, n=10) (7 men, 3 women) we performed nasotracheal aspiration and for other group (group 2, n=10) (6 men, 4 women) we performed bronchoscopy. Changes in arterial blood gas were revealed.
RESULTS: In group 1, mean age was 67.2±10.5 years. 5 patients were diabetic and 9 patients were hypertensive. Mean pulmonary ventilation support time was 6.4±2.1 hours. 2 patients had pneumonia in postoperative period. Mean number of nasotracheal aspirations were 2.9±1.2. Atelectatic and infiltrative appearances on chest radiography were in progress after the procedure in 3 patients. Intensive care unit stay was 3.3±1.3 days, hospital stay was 12.4±6.2 days. In group 2, mean age was 65.6±8.8 years. 4 patients were diabetic and 7 patients were hypertensive. 2 patients have history of chronical obstructive lung disease. Mean pulmonary ventilation support time was 6.9±2.7 hours. 3 patients had pneumonia postoperatively. Mean number of bronchoalveolar aspirations were 2.1±0.4. Atelectatic and infiltrative appearances on chest radiography were in progress after the procedure in 2 patients. Intensive care unit stay was 3.1±1.2 days, hospital stay was 11.2±5.8 days. In both groups, patients' oxygen saturation, and partial oxygen values were significantly increased. However, there is no significant difference between the two groups.
CONCLUSIONS: Pulmonary dysfunction is an important problem in the intensive care unit in follow-up after open heart surgery. Both nasotracheal and bronchoalveolar aspiration can be used for these patients to remove secretions from bronchia. Patients' oxygen saturation and partial oxygen values in arterial blood gases were increased but there is no significant difference between two groups.

OP-087 EFFECTS OF OZONE THERAPY AS AN ADJUNCT TO VANCOMYCIN TREATMENT IN A RAT MODEL OF DEEP STERNAL WOUND INFECTION (DSWI)

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OBJECTIVE: We aimed to investigate the effect of intraperitoneal ozone theraphy (OT) in an experimental design of staphylococcus aureus

mediastinitis in rats as an adjunct to standart antibiotic treatment.

METHODS: Forty Wistar-Albino rats were randomized into five groups (eight per group) as follows: sham group, control group, ozone group, vancomycin group and vancomycin + ozone group. The sham group underwent upper median sternotomy. In the remaining four groups right after sternotomy, 108 CFU/mlx0.5 ml Vancomycin sensitive Staphylococcus Aureus species was inoculated on the sternal tissues and into the mediastinal space. Control group had no treatment. Rats in the vancomycin group recieved intramuscular vancomycin (40mg/kg/daily) and ozone was administered intraperitoneally (1mg/kg/daily, mean 3mL, 70µg/mL) in the ozone group. Vancomycin +ozone group rats were treated by means of both methods. At the end of 10 days whole rats were sacrificed under deep anesthesia and sternomediastinal tissue specimens for pathologic examination and swab cultures for bacterial count were obtained.

RESULTS: Microbiological analysis revealed significantly increased bacterial count in the control group as compared with the remaining four groups ($p < 0.05$). Vancomycin + ozone treatment was observed to decrease the bacterial count in the swab cultures ($p<0.05$ vs control, ozone and vancomycin groups). Histological examination showed that vancomycin + ozone treatment attenuated the inflammatory response associated with deep sternal wound infections (DSWI). Inflammation score was significantly increased in the control group when compared with the other groups ($p<0.05$). Although the inflammation score in the ozone group was lower than the score in control group the difference did not reach statistical significance however vancomycin treatment caused a significant reduction in magnitude of inflammation ($p<0.05$). Vancomycin + ozone treatment resulted in a further reduction in inflammation score as compared to sole vancomycin treatment ($p<0.05$).

CONCLUSIONS: This experimental study indicated that OT as an adjunct to vancomycin in the treatment of DSWI leads to enhanced bacterial elemination and augmented decreament in inflammatory response. This beneficial effect of adjuvant ozone therapy was suggested to be related to the bactericidal effect of ozone.

OP-088 THE EFFECT OF TRANEXAMIC ACID AND DESMOPRESSIN ACETATE INFUSION ON COAGULATION PARAMETERS IN PATIENTS OPERATED UNDER DUAL ANTIPLATELET THERAPY

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OBJECTIVE: Bleeding problems after emergency CABG in patients taking dual antiplatelet therapy(DAP) is still major concern.The aim of the study is to investigate the effect of tranexamic acid and desmopressin acetate infusion seperately or in combination,on coagulation parameters after emergency CABG operation.

METHODS: The study is a prospective, randomised, double blind study. 54 patients who taking DAP operated in emergency settings in the Department of Cardiovascular Surgery, KTU were included. Tranexamic acid group(Tx, n=18) received only tranexamic acid(10 mg/kg,30 min. as induction+ 1mg/kg,10 h. infusion);Tx+ Desmopressin(Tx+Des, n=16) group received both tx and desmopreesin infusion(0.3 µg/kg,in 20 min. iv infusion);Des group(n=10) received only Des infusion. The control group(n=10) received nothing except regular infusions.All patients were operated on under same surgical standards,and by one surgical team.Blood was taken 1 day before the operation(T1);after heparin neutralization with protamin(T2);in the 6th hour postoperatively(T3);and 30 hours postop(T4) to examine vWf and PAP levels. Groups were compared in terms of intraoperative closing time(the time between heaprin neutralization with protamin and wound closure),postoperative bleeding,the amount of blood and blood products administered.

RESULTS: There was no statistical difference between groups in regards to age,sex,risk factors,Euroscore points, hematalogical parameters, distal anastomosis numbers or CPB and cross clamp times($p>0.05$).The avergae surgical closure time was 33 minutes in the Tx group;32 mins in the Tx+Des group;45 mins in the Des group and in the control group it was 48 minutes.The total amount of postoperative drainage was found to be 535ml for the Tx group;574ml for the Tx+Des group;1430ml for the DES group and 1767ml in the control group.The amount of blood and blood products administered can be seen in the table.The time of surgical closure,drainage amount and use of blood products were shown to have a significant difference in the Tx group when compared to the Des and control groups ($p< 0.016$).A difference was not observed in the vWF values($p>0.016$). The average PAP parameters showed no difference at T1 or T2.While the difference between Tx group compared to Tx+Des and Des groups was statistically significant at T3(Tx; 191ng/ml,Tx+Des;101 ng/ml,Des; 92 ng/ml, $p<0.016$),the difference between the Tx and control group was not sigificanti($p> 0.016$).At T4,however,only the difference between the Tx and Control group was significant(282;155 ng/ml, $p<0.016$)

CONCLUSIONS: Tranexamic acid infusion starting at the time of skin incision significantly decreases patients intraoperative closing time,postoperative bleeding,and the amount of blood and blood products used.However,desmopressin acetate infusion alone or in combination with tranexamic acid infusion has no positive effects on coagulation parameters after emergency CABG

Amounts of blood products used in patient groups (ml.)

	Tx	Tx + Des	Des	Control group
Erythrocyte Susp (ml)	125,00±128,62	93,75±125,00	675,00±237,17	900,00±268,74
FFP (ml)	22,22±64,67	0,00±0,00	460,00±298,88	680,00±301,10
Platelet Susp (ml)	0,00±0,00	0,00±0,00	0,00±0,00	120,00±209,76

Use of blood products were shown to have a significant difference in the Tx groups when compared to the Des and control groups (p< 0.016).

OP-089 ON-PUMP BEATING HEART VERSUS CONVENTIONAL CORONARY ARTERY BYPASS GRAFTING FOR REVASCULARIZATION IN PATIENTS WITH SEVERE LEFT VENTRICULAR DYSFUNCTION: EARLY TERM OUTCOMES

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OBJECTIVE:BACKGROUND: The mortality of conventional coronary artery bypass grafting in patients with low ejection fraction remains high. The purpose of our study was to evaluate in coronary arterial disease patients with low ejection fraction the effects of on-pump beating-heart versus conventional coronary artery bypass grafting requiring cardioplegic arrest. We report early term outcomes associated with survival, morbidity, and improvement of left ventricular function.
METHODS: Between May 2008 and December 2011, 101 patients with low ejection fraction were underwent coronary artery bypass grafting. In the first 51 patients (Group I) were performed the conventional coronary artery bypass grafting, in the most recent 50 patients (Group II) were made the on-pump beating-heart procedure without cardioplegic arrest. Mean age in Group I was 65.3 ± 4.5 years (52-81 years); in Group II was 68.1 ± 4.8 years (55-77 years). New York Heart Association classifica¬tions were 3.3 ± 0.45 and 3.2 ± 0.6 in Group I and Group II, respectively. Left ventricular ejection fraction was 26.6% ± 3.5% in Group I, in Group II was 27.7% ± 4.7%. In Group I, left ventricular end diastolic diameter was 65.6 ± 3.6 mm; this diameter was 64.1 ± 3.2 mm in Group II.
RESULTS: Operative mortality between Groups I and II was 13(25 %) and 3(0,6 %),respectively. There was a significant reduction in mortality between the con¬ventional and on-pump beating groups ($p<0.05$). In the conventional coronary artery bypass grafting group was required new insertion of an intra-aortic balloon pump, whereas no patients required this in the on-pump beat¬ing-heart group ($p<0.05$). There were in 4 patients postoperative renal failure requiring hemodialysis in the Group I, but in no patients in the on-pump beating-heart group ($p<0.05$). Peri-operative myocardial infarction, low cardiac output syndrome, and bleeding were higher in Group I ($p<0.05$). Improvement of left ventricular function within 3 months after the surgical procedure was markedly higher in Group II, demonstrated by increased left ventricular ejection fractions, lower left ventricular end diastolic diameter versus the preoperative data in Group I. The actuarial survivals at 1, 12, and 18 months were 97 %, 84 %, and 77 % in Group II and 82 %, 72 %, and 60 % in Group I ($p<0.05$).
CONCLUSIONS: On-pump beating-heart coronary artery bypass grafting is the preferred method in low ejection fraction for myocardial revascularization. On-pump/beating-heart coronary artery bypass grafting may be an acceptable alternative associated with lower postoperative mortality and morbidity than conventional coronary artery bypass grafting.

March 1, 2012 / 17:00-18:30
NEW TREATMENT OPTIONS IN PERIPHERAL ARTERIAL DISEASES – ORAL PRESENTATIONS

OP-090 SURGICAL TREATMENT IN HEMANGIOMAS

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OBJECTIVE: Hemangiomas are the most common benign tumours in neonatal childhood. The treatment modality varies with respect to the presentation, extent of the lesion, progression and their complications. In this article, we present seven patients of hemangiomas whom were treated surcically in our clinic.
METHODS: The study included 7 patients (3 females, 4 males and mean age 24,57 years) who were operated for hemangioma in our clinic between 2004-2007. In this retrospective study, preoperative complaints, clinical and radiological findings, surgical approachs, complications and outcome of treatment of our patients were evaluated.
RESULTS: Complete excision of the hemangioma was accomplished without arterial and venous injury in all cases. The mean follow-up period was 36 months. There were no mortality and significant postoperative complications in this study.
CONCLUSIONS: Hemangiomas are benign neoplastic proliferations of vascular endothelial cells characterized by spontaneous involution and usually they are asymptomatics. However, there is a little subunit of hemangiomas that endanger the patient's life either because of anatomical localization, tumour's size, destroy tissue or agrssive growth. If the hemangiomas do not disappear completely or if it disappear but leave scarring or permanent skin, surgical treatment methods may be recommended later in life.

OP-091 ENDOVASCULAR TREATMENT FOR PERIPHERAL ARTERIAL DISEASES

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OBJECTIVE: Besides the conventional surgical approach in the treatment of peripheral arterial disease, and endovascular treatment methods recently are being used increasingly. In this study, we present our experience in endovascular treatment of peripheral arterial disease in our clinic.
METHODS: Between November 2010 and November 2011, 10 out of 27 patients who underwent surgery for peripheral arterial disease were treated with endovascular methods in our clinic. Eight of the patients were male and one was female, average age was 66 years with a range between 51 to 74 years. Two patients with TASC C lesions underwent failed subintimal balloon angioplasty that was converted to emergency infragenual femoropopliteal bypass with reverse saphenous vein in one patient and to supragenual femoropopliteal bypass with ePTFE graft in another. Bioabsorbable stent implantation was performed to left superficial femoral artery in 3 patients and to right superficial femoral artery in 3 patients. Percutaneous transluminal angioplasty and self-expandable nitinol stent implantation was performed in one patient and subintimal balloon angioplasty implantation was performed to left superficial femoral artery in another one.
RESULTS: Immediate success was obtained in all patients. In postoperative period we observed pronounced improvements on complaints of patients and all patients were discharged without any problem. In the follow-up period, we did not observe any vascular problems.
CONCLUSIONS: Endovascular treatment applications are becoming increasingly widespread in selected patient groups that have extensive peripheral arterial lesions, critical ischemic leg, diabetic and gangrenous lesions, in elderly patients, in patients before performed with previous cardiovascular surgery surgery.In peripheral arterial diseases, complete treatment of the disease may become possible with this approach while exposing the patients to less surgical distress.

OP-092 OUR CLINICAL EXPERIENCE IN RAYNAUD'S PHENOMENON IN YOUNG AGE GROUP

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OBJECTIVE: Raynaud's phenomenon (RP) is a vasospastic disorder which often affects the upper extremity arteries, and less frequently lower extremity arteries. Although main etiological factor is unclear, but change in skin color and pain occurs as a result of cold and emotional stress. Clinical symptomatology is characterized by episodic digital ischemia. Raynaud's phenomenon usually occurs in young women between the ages of 20 to 40.
METHODS:144 patients with primary Raynaud's phenomenon in our clinic between November 2009 and December 2011 were examined retrospectively in terms of the etiological factors and medical treatment. Raynaud's phenomenon was diagnosed with cold test. 129 patients (89%) were male and 15 (11%) were women. Neurological exam and nerve conduction studies were normal.
RESULTS: Exposure to cold was present in all patients. In addition to this, smoking in 98 patients, oral contraceptive use in 1 patient, beta-blocker use in 2 patients was present. Medical treatment was not given to 61 patients because of mild clinical signs. These patients were followed up by conservative methods such as recommending the protection of extremities from cold. In addition, the termination of smoking was recommended to these patients. 63 patients were treated with aspirin and pentoxyfilin. 20 patients were treated with nifedipine in addition to this treatment. Ilioprost was performed in 1 patient who did not benefit from nifedipine. The surgical procedure was performed in none of our patients.
CONCLUSIONS: Despite Raynaud's phenomenon is seen women 5 times more in literaure, male predominancy was present in patients who were admitted to our clinic with Raynaud's phenomenon. This is because of being young male patients who were admitted to our clinic. As a result of our clinical observations, conservative methods such as protection from cold, emotional stress reduction and smoking cessation is the basis of treatment of RP. Medical and surgical treatment should be taken into consideration in cases with frequent painful episodes.

OP-093 SURGICAL TREATMENT PRINCIPLES OF IATROGENIC VASCULAR INJURIES

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OBJECTIVE: Nowadays, vascular interventional procedures are applied frequently for the diagnosis and treatment of cardiac and vascular pathologies. Complications of these interventions can lead to many problems such as limb loss and death. In this study; it was aimed to evaluate the results of patients who applied surgical procedures due to iatrojenic vascular injuries in our clinic.
METHODS: Between 1984-2011; 77 patients with the diagnosis of iatrojenic vascular injury were operated in Cardiovascular Surgery Clinic of our hospital. Patients were evaluated for the location and type of vascular complications, surgical techniques and results of surgical treatment retrospectively.
RESULTS: The average age of patients was 61 (6months-80years). 46 patients were male and 31 patients were female. Surgical intervention was performed due to complications for Sixty-four patients underwent cardiac catheterization, seven patients underwent peripheral vascular angiography, five patients underwent arterial cannulation and one patients underwent endovascular aneurysm repair.

The patients were operated in emergency conditions after physical examination, ultrasonography and echocardiography examination. The right femoral artery was the most common vascular injury in 41 patients(%53,2). 34 patients had thrombosis, 23 patients had hematoma-rupture, 13 patients had pseudoaneurysm, 2 patients had arteriovenous fistula, 5 patients had coronary artery injury. As surgical treatment; embolectomy was performed in 34 patients, removal of hematoma and primary repair of artery was performed 19 patients, excision of the pseudoaneurysm was performed in 11 patients, closure of arteriovenous fistula was performed in 2 patients, removal of pericardial tamponade and repair of coronary artery was performed in 5 patients, graft interposition and anatomic-extraanatomic bypass was performed in 6 patients. Total hospital mortality was 3 (%3,9). Limb amputations were performed in 4 (%5,2) patients.
CONCLUSIONS: Vascular procedures are used quite frequently for diagnosis and treatment of cardio-vascular pathologies. Iatrojenic vascular injuries cause significant morbidity and mortality. For this reason early diagnosis and treatment of iatrojenic vascular injuries are very important.

OP-094 INFRAGENICULAR FEMOROPOPLITEAL BYPASS SURGERY EXPERIENCES

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OBJECTIVE: Below-knee bypass surgery is usually the final alternative for limb salvage. Autogenous saphenous vein is the best alternative below inguinal liagament. But, many graft materials are used. When distal anastomosis is above the knee, synthetic grafts are more acceptable. If anastomosis is below knee, aoutogenous grafts are preferred more than synthetic.
METHODS: In our clinic, between 2005-2011 years, infragenicular femoropopliteal bypass operation was performed to 82 patients. Median age was 55.3. %92(n=76) of patients were male and %8(6) of patients were female. All patiens had end stage peripheral arteriel occlusive disease, critical ischemia or no chance above-knee femoropopliteal bypass.
RESULTS: Most of below-knee bypass operations are from femoral artery to infragenicular popliteal artery. Some operations can be from aorta to popliteal artery or from femoral artery to tibialis posterior arter yor dorsalis pedis artery. Most of below-knee bypass operations are femoropopliteal bypasses. Autogenous grafts are the most commonly used grafts. Saphenous grafts are most preferred autogenous grafts. This grafts can be use reverse, in-situ and compozite forms. In our clinic, in-situ saphenous graft are the most commonly used form of saphenous grafts. After in-situ reverse and compozite form can prefer, to. Other than those of grafts, biological and synthetic grafts can use. But this grafts using are limited. If popliteal anastomosis is imposible, distal bypass can be preferred in rare cases using saphenous vein.
CONCLUSIONS: Below-knee bypass operations is performed in limited indications. Most of patients are in border of critical peripheral arterial disase. For those patients, maximum graft patency is possible with using autogenous or biological graft. Saphenous vein have been experienced many times and safe for below-knee bypass. But, biological grafts are also in roads into clinical practice, day by day.

OP-095 ACUTE ARTERIAL OCCLUSION

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OBJECTIVE: Acute arterial occlusion is frequently encountered in clinical practice and requires emergency surgical treatment. We can see loss of limbs or life threatening complications, postoperatively. Use of catheters which were defined by Fogarty in 1963 are still the basic of operations, today. With this simple method, a significant decline has been held on mortality and morbidity.
METHODS: In our clinic, between dates 2005 and 2011, 451 patients had embolectomy operation. Median age was 72.2. %45.5(205) of patients were male and %54.5(245) of patients were female. Starting time of symptoms to admission to hospital was changing between 4 hours to 6 days. Atrial fibrillation, valvular disases and chronic peripheral vascular disases were the most commonly seen preoperative causes. Femoral embolectomy was performed to 293 patiens, brachial embolectomy was performed to 121 patients, popliteal embolectomy was performed to 16 patients, tibialis posterior artery embolectomy was performed to 6 patients, superior mesenteric artery embolectomy was performed to 14 patients and abdominal aorta embolectomy was performed to 1 patient.
RESULTS:56% of patients which performed femoral embolectomy was present in the distal pulse at postoperative follow up. 4% of patients wasn't present distal flow effects at postoperative inspection and to this patients performed peripheral bypass surgery, later. 11 patients which performed femoral embolectomy had limb amputation. Femoral arterial endarterectomy+patch plasty performed to 14 patients which performed femoral embolectomy operation. Popliteal and tibialis posterior artery embolectomy, supra and infragenicular femoropopliteal bypass, tibialis posterior artery bypass and aortofemoral bypass operations performed ongoing ischemia. Fasciotomy surgery performed to 14 patients because of compartment syndrome after lower limb embolic disases surgery. Amputation surgery performed to 21(%4) patients after lower limb embolic disases. Radial and ulnar embolectomy performed to 2 patients with brachial embolectomy. Brachial arterial endarterectomia+ patch plasty performed to 1 patient. Fasciotomy surgery performed to 6 patients because of compartment syndrome after upper limb embolic disases surgery.
CONCLUSIONS: Acute arterial occlusion is a frequent disase. The most important factor affecting the outcome of the treatment is time of admission to

hospital. Compartment syndrome, acute renal failure and acute lung damages occur on delayed operations and secondary to reperfusion. As a result, early diagnosis and treatment of acute arterial occlusions are the most important point for low mortality and morbidity, either, anticoagulant treatment is the most important point prevent recurrences.

OP-096 EVALUATION OF MEAN PLATELET VOLUME VALUES IN THYROTOXICOSIS PATIENTS

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OBJECTIVE: Mean platelet volume (MPV) is an indicator of platelet reactivation and predictive of future thrombotic risks and vascular diseases. In studies, was shown that presence of hyperthyroidism and thyrotoxicosis states increases tendency to coagulation. We aimed to investigate MPV values in thyrotoxic patients
METHODS:A total of 1961 subjects with a mean age of 56±14 were evaluated. Thyrotoxicosis was detected in 273 subjects (178 women, 95 men). Thyrotoxicosis was defined as serum TSH value under 0, 35 IU and free T4 over 1, 41 IU.
RESULTS: Results are shown in table 1.
CONCLUSIONS:MPV values were similar in thyrotoxic patients and control subjects.

Characteristics of subjects in thyrotoxicosis and control groups

	Thyrotoxicosis (n: 273)	Control group (n: 1688)	P value
Gender (Female)	178	1072	NS
Hypertension	151	677	<0,01
Diabetes Mellitus	129	620	0,01
Metabolic Syndrome	93	505	NS
White blood cells (×109/l)	6,4±1,6	6,6±1,7	NS
Hematocrit (%)	38,8±4,3	39,1±4,7	NS
Platelet counts (×109/l)	260±62	258±69	NS
Mean platelet volume (fl)	8,87±1,49	8,88, ±1,47	NS

OP-097 PERMENANAT DIALYSIS CATHETERS, ARE THEY REALLY PERMENANT?

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OBJECTIVE: Chronic renal failure is seen more frequent as a result of medical and scientific developments.
For hemodyalisis patients a vascular access has vital importance. Permenant and temporary catheters are the two types of hemodyalisis catheters.
METHODS:51 patients who recieved a permenant hemodiaysis catheter in 2010 and 2011 in Kocaeli University Cardio-Vascular Surgery Clinic and who are in the hemodialysis programme of our hospital's hemodiyalisis unit are examinated retrospectively.
Patients who received a permenant dialysis catheter by our clinic but who are in the dialysis progamme in other centers are not included in our study.
The patients age, sex, indication of cateters placement, the localisation, causes for removing the cathters, using time and complications are recorded.
RESULTS:27 patients were male, 24 were female, their age was between 17 and 85.(65,03 ± 14,65)
To 51 patients 74 permenant dialysis catheters were placed. 36 were placed of right jugular vein, 17 of left jugular vein,11 of right subclavian vein, 7 of left subclavian vein, 3 of right femoral vein. Most of the cases were performed by the aid of ultrasound. The most frequent complication was puncture of an artery and hematoma surrounding the catheter. Puncture of artery is seen in subclavian punctures were we didn't use ultrasuond. We didn't see pneumthorax in any case, one patient had a serebrovasculary attack.The longest time of use of a permenant dialysis catheter was 13 months, the mean use period was 9,2 months.
CONCLUSIONS: In chronic renal failure the prefered vascular access for hemodyalisis are arterio-venous fistulas and permenant dialysis catheters. Permenant dialysis catheters are the first choice for vascular access in patients with peripheric vascular disease,diabetes,obesity and in severe congestive heart failure and pulmonary diseases. The prefered localisation for the catheter is jugular vein because low complication risk and facility of puncture. The complication rate is decreased due to ultrasound assisted operations. We prefer the internal jugular vein for the first access.We often use ultrasound and our low complication rate may be related with this approach.
The time of use of the hemodialysis catheters are nearly related with the type of catheter, preoperative examination of the patient, puncture localisation and use of ultrasound.

March 1, 2012 / 12:00-13:30
ATRIAL FIBRILLATION: CLUES FOR PATHOGENETIC MECHANISM AND NEW THERAPEUTIC HORIZONS – ORAL PRESENTATIONS

OP-109 MAY AMIODARONE TOXICITY BE PREVENTED BY APPLICATION OF VITAMIN E?

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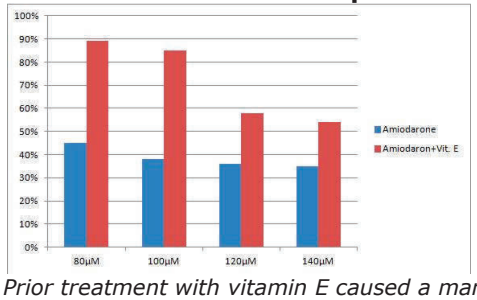
OBJECTIVE: Atrial Fibrillation (AF) is a rhytm disturbance defined as rapid and irregular, electrical and mechanical activation of the atrial muscle. The incidence of AF after coronary artery bypass graft (CABG) surgery is reported to be as high as 30%. It peaks at the postoperative second day. Previous AF, advanced age, male gender, decreased left ventricular functions, increased left atrial diameter, concomittant valve surgery, coexisting chronic obstructive pulmonary disease, obesity, diabetes mellitus and chronic renal failure are risk factors for occurrence of Post-CABG AF. Amiodarone is a Type 3 antiarrhytmic agent commonly used for prophylaxis and treatment of AF. It has pulmonary, hepatic and neural toxicity. It may lead to thyroid dysfunction, ocular complications and arrhythmias. The most devastating toxic manifestation is pulmonary toxicity which can develop even after 1 week use of the drug. There are no documented clinically available agents to prevent amiodarone induced cytotoxicity.
METHODS:L929 mouse fibroblast cell line was used for cell culture. Cells were seeded on 96-well culture plates at 5000 cells/well and treated with increasing amounts of amiodarone for 24 hours at 37°C (80, 100, 120 and 140 µM). Same process was repeated in the presence of Vitamin E (1-fold equimolar dose of amiodarone) for 3 hours prior to amiodarone exposure.
RESULTS: Cytotoxic effects of amiodarone on growing cultured cells was measured by MTT assay. Increasing concentrations of amiodarone caused decreased viability, but prior treatment with vitamin E restored cell mortality (Figure 1).
CONCLUSIONS: Despite the widespread use of amiodarone for post-CABG AF, no proven method to prevent cytotoxicity is available. The cytotoxicity test performed on cell culture medium showed decreased cytotoxicity via prior treatment with vitamin E. This laboratory finding may be a preliminary data to be applied for clinical use in terms of preventing toxicity.

Viability after only amiodaron vs. amiodarone+vitamin E exposure



Prior treatment with vitamin E caused a marked increase in viability in cell culture medium

March 1, 2012 / 15:00-16:30
NON - INVASIVE ELECTROCARDIOLOGY: NEW NOTES IN 2012 – ORAL PRESENTATION

OP-117 ADVANCED ATRIOVENTRICULAR BLOCK THAT OCCURS AFTER TREATMENT WITH BETAXOLOL EYE DROPS

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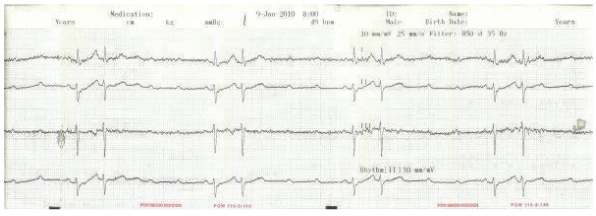
OBJECTIVE: Atrioventricular (AV) block is a rare complication of ophtalmic beta-blockers wich used in glaucoma treatment. A 70 year old man admitted to our emergency depermant with complaints of dizziness and fatigue. He was on betaxolol treatment for 15 days for glaucoma. On physical examination, his heart rate was 30 bpm, blood pressure was 110/70 mmHg. Electrocardiogram showed advanced AV block(Figure). Chest X-ray was normal. Transthorasic echocardiography revealed mild mitral and tricuspit regurgitation with preserved left ventricular systolic function (EF:%60) Coronary angiography revealed plaques without significant stenosis in coronary arteries. After nine days monitoring in the intensive care unit no improvement was observed in the AV block, he underwent DDD-R permanent pacemaker implantation.
METHODS: Topical forms of timolol, levobunolol, carteolol, metopranolol and betaxolol are used to decrease intraocular pressure for the treatment of glaucoma. Topical beta blockers have less cardiovascular side effects than oral or parenteral forms. Particularly, these side effects are rarely seen with carteolol because of its intrinsic sympathomimetic activity. Topical beta blockers are thus better tolerated. Systemic and cardiovascular side effects of topical beta blockers used for the treatment of glaucoma are usually due to absorption of the drug from the lacrimal c 47 anal and nasopharynx. Among the ophtalmic beta blockers, timolol causes these side effects more frequently. High grade AV block is one of the rarest cardiovascular side effects of ophtalmic beta blockers. This may be caused by direct effect of these drugs or may be due to triggered underlying organic conduction defects. A number of cases of high grade AV block caused by ophtalmic beta blockers timolol, carteolol and levobunolol are present in literature. To our knowledge, association between betoxolol eye drops and advanced AV block has not been reported previously. A study by Rubin et al. on 243 patients with AV block showed that 5% of cases are caused by ophtalmic beta blockers used for the treatment of glaucoma and 40% of these patients required the implantation of a permanent pacemaker. Besides, this study showed that the mean age of patients with AV block is 72.In conclusion, although AV block is usually seen with the use of oral or parenteral forms of beta blockers, it may also be seen with topical forms. Decline rate of ß-receptor occupancy in 72 older patients is slower. Particularly ophtalmic beta blockers should be used with caution in elderly patients.

Figure



OP-121 QUICK EVALUATION OF SEVERITY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE WITH ELECTROCARDIOGRAPHY IN DAILY CLINICAL PRACTICE

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[2]Department of Cardiology, Private Oztan Hospital, Usak, Turkey
[3]Department of Cardiology, Siverek State Hospital, Sanliurfa, Turkey
[4]Department of Pulmonary Diseases, Istanbul Mehmet Akif Ersoy, Thoracic and Cardiovascular Surgery Center and Research Hospital, Istanbul, Turkey

OBJECTIVE: Chronic obstructive pulmonary disease (COPD) is a growing problem worldwide. It is ranked as the fourth leading cause of chronic morbidity and mortality. COPD, leading reduced lung function, is a strong risk factor for cardiovascular events. COPD and heart diseases often co-exists. Bronchial obstruction and increased pulmonary vascular resistance impairs right atrial functions. Therefore, in daily clinical practice, cardiologists frequently come across patients with COPD. In this study, we aimed to investigate the effect of bronchial obstruction on p wave axis in patients with COPD and usefulness of ECG findings in the evaluation of severity of COPD.
METHODS: Fifty four patients (34 male 20 female) included to the study. Patients were in sinus rhythm, with normal ejection fractions and heart chamber sizes. Their respiratory function tests and 12 lead electrocardiograms were obtained at the same day. Correlation with severity of COPD and ECG findings including p wave axis, p wave duration, QRS axis, QRS duration were studied.
RESULTS: The summary of our results has been shown in table-1. The mean age was 57±12 years. Their mean p wave axis was 63±15 degrees. In our findings there was a statistically significant negative correlation with forced expiratory volume (FEV1) and p wave axis. Similarly same negative correlation was seen between p wave axis and forced expiratory flow 25%-75% (FEF 25-75). However, there was no correlation with p wave duration, QRS axis and QRS duration with severity of COPD.
CONCLUSIONS: Verticalization of the frontal p wave axis reflecting right atrial electrical activity and right heart strain may be a useful parameter for suggesting severity of COPD. Verticalization of the frontal p wave axis may also be an early finding of worsening of COPD before occurrences of other ECG changes of hypertrophy and enlargement of right heart chambers such as p pulmonale.

Correlations Between ECG Changes and Pulmonary Functions

	FVC	FEV1%	FEF 25%-75%
P wave axis	r=-0,225 p>0,05	r=-0.43, p =0.003	r=-0.40, p =0.006
P wave duration	r=-0,153 p>0,05	r=-0,218 p>0,05	r=-0,279 p>005
QRS axis	r=-0,026 p>0,05	r=-0,164 p>005	r=-0,253 p>005
QRS duration	r=0,052 p>0,05	r=0,038 p>005	r=0,059 p>0,05

OP-122 HEART RATE RECOVERY INDEX IN PATIENTS WITH PSORIASIS

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OBJECTIVE: In clinical practice, autonomic functions are investigated indirectly with heart rate variability (HRV) measurements. Our aim was to evaluate the heart rate recovery index in patients with Psoriasis which is a systemic inflammatory disease.
METHODS: The study population included 39 (18 female, mean age 48 ± 15 years) mild to moderate psoriasis patients, and 40 (18 female, mean age 44 ± 9 years) control group healthy individuals. All of the participants underwent exercise treadmill test.
RESULTS: The 1st-3rd and 5th minutes HRR index of patients with Psoriasis were similar with those of the healthy control group.
CONCLUSIONS: Heart rate index which is calculated with exercise stress test and associated with the autonomic nervous system function remained constant in mild to moderate psoriasis patients.

1st-3rd and 5th minutes HRR index.

	Psoriasis (n:39)	Control group (n:40)	P value
HRR1	30±12	32±18	0,71
HRR3	57±13	64±17	0,10
HRR5	64±15	68±16	0,46

March 1, 2012 / 17:00-18:30
SURGERY FOR VALVULAR HEART DISEASE: MITRAL VALVE IN FOCUS – ORAL PRESENTATIONS

OP-125 AN INSTRUMENT MAKES MITRAL VALVE REPAIR TRAINING EASY IN HOME ALONE

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[3]Department of Cardiology, Gulhane Military Medical Academy, Ankara, Turkey

OBJECTIVE:A surgical table was designed to give opportunity to surgery residents, to study oneself in home. With this table, mitral, aortic and tricuspid repair or coronary anastomotic techniques can be studied and experimented home alone. It is a cheap tool, and the presence of a second person for assistance is not necessary. It can be used in hospitals to train cardiac surgical residents.
METHODS: Two chromium steel rods were fixed on two corners of tea tray (30 × 40 × 2 cm) and two left atrial retractor were mounted on each rod, capable of three-dimensional movements. A smaller table was fixed obliquely in the centre of the surgical table to put the bovine heart on it. The heart set-up begins by assessing the heart for nonanatomic defects from the butchering process. In this study, we tried on mitral valve repair procedures. The aorta was closed with a running 3-0 silk suture to prevent leakage from aortic valve during the saline test after mitral repair. The atrial retractors were fixed to the atrial wall with three or four simple stures. The gravity force of the heart and the opposite forces of retractors provide stabilization. Mitral valve apparatus was examined by beginning from P1 scallop with nerve hooks in order to assess any chordal rupture, elongation. If the valve had no leak, a lesion (chordal cut, resection or perforation of the leaflets) was created in mitral apparatus and then the valve was examined again to select the most suitable repair technique. After repair, left ventricle was filled with water to appraise any leakage in saline test.
RESULTS: Valve repair offers a distinct event-free survival advantage compared with replacement with a bioprosthetic or mechanical valve. Despite a consensus in guidelines encouraging mitral valve repair, a significant number of patients with degenerative mitral-valve disease still undergo planned mitral valve replacement all over the world, including the USA. Many patients end up with a valve replacement not because the valves are irreparable, but because they are operated on by surgeons who do not have the specific expertise required to complete a successful repair.
CONCLUSIONS: Our cardiac surgical table was designed to accomplish valve surgery (mitral valve repair, aortic valve sparing procedures, tricuspid valve repair etc.). Not only surgical residents, but also staff members, cardiac surgeons who wish to make training in complex surgical techniques such as mitral or aortic valve repair without any assistance can use this table.

Figure

Figure 1
A. Surgical table: Each atrial retractor can be moved upward, downward, right, left, backward, forward, and circumferentially. A smaller table was fixed obliquely in the center.
B. A bovine heart is placed on the small table within the surgical table and left atrial walls are retracted, the posterior part of left atrium is removed and aorta is closed with a 3-0 silk suture.
C. In this examination there is an elongation in P2 scallop next to P1.
Figure 2
A. A healthy secondary chordae is cut beneath the P2 scallop to be transferred to the free margin of elongated part. Note the stay suture at the each side of elongated part of P2 (Note that a white subject like catheter is visible inside left ventricle in figure 2A and B is the flashing of another secondary chordae during taking photograph.)
B. The secondary chordae is sutured to the free margin with 3 interrupted 5-0 polyester sutures.
C. Following completion of the repair, the left ventricle is filled with water and no leaks are observed.

OP-132 DOES SUBCLAVIAN ARTERY CANNULATION IMPROVE OPERATIVE RESULTS FOR AORTIC DISSECTION AND ANEURYSM?

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[1]Department of Cardiovascular Surgery, Private Defne Hospital, Hatay, Turkey
[2]Department of Cardiology, Private Defne Hospital, Hatay, Turkey
[3]Department of Anaesthesiology, Private Defne Hospital, Hatay, Turkey

OBJECTIVE: This study evaluated the clinical and neurological outcome of patients undergoing aortic surgery following subclavian arterial cannulation and deep circulatory arrest.
METHODS: From June 2008 to December 2011, 80 consecutive patients (mean age 56,6, 49male, 31 female) underwent surgery for acute and/or chronic aortic dissection and aortic aneurysm. Three patients had femoral artery cannulation, 32 had high aortic and 45 had subclavian artery cannulation. Data on presentation, preoperative characteristics, operative details, hospital mortality, and neurological outcome were analyzed and compared. Fourty-seven patients had subclavian artery cannulation and, 30 had high aortic cannulation finally 3 had femoral cannulation.
RESULTS: Arterial subclavian cannulation was successfully performed without any occurrence of malperfusion in all cases. Patients undergoing subclavian cannulation showed for an improved neurological outcome compared to patients undergoing aortic and femoral cannulation.
CONCLUSIONS: Arterial perfusion through the right subclavian artery provides an excellent approach for repair of acute or chronic aortic dissection and aortic aneurysm with optimized arterial perfusion body perfusion and allows for cerebral perfusion during circulatory arrest. The technique is safe and results in a significantly improved clinical and especially neurological outcome.

OP-133 LIMITED ANTERIOR TORACOTOMY FOR REDO MITRAL VALVE SURGERY

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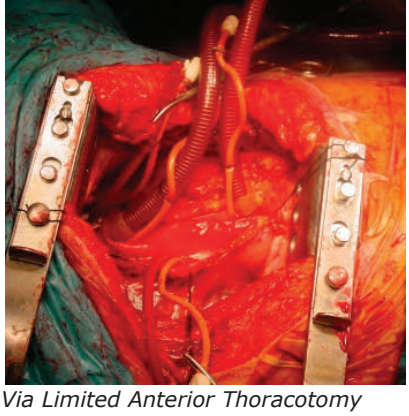
Department of Cardiovascular Surgery, Istanbul Faculty of Medicine, Istanbul, Turkey

OBJECTIVE: Resternotomy for mitral valve surgery may lead to severe complications with high rates of mordibidity and even mortality in particularly those with previous coronary bypass surgery. Right anterior limited thoracotomy approach allows for adequate surgical exposure with significantly lower risk during dissection particularly in patients with patent internal mammarian graft.
METHODS:23 patients (18 males, 5 females; median age 63 years; range: 46-73 years)all in NYHA class III or IV status and patent LIMA grafts underwent mitral valve surgery between January 2002 and July 2010. 10 patients were approached through a right thoracotomy with beating heart procedure and normothermic cardiopulmonary bypass (right thoracotomy group), and 13 were approached through a resternotomy with aortic cross-clamping and cardioplegic arrest. The median ejection fraction was 42% (range: 35-68%). Predictors of outcome was determined.
RESULTS: Transfusion requirements were greater in the resternotomy group. Internal mammarian artery graft injury in two resternotomy patient. Two patients in the resternotomy group in the immediate postoperative period in comparison to one patient in the right thoracotomy group experienced a nonfatal stroke resulting in multiorgan failure on postoperative 81st day.
CONCLUSIONS: In patients with coronary artery bypass graft surgery and functional mammarian artery graft, right anterior thoracotomy incision reduces the risk of injury due to a more secure and simple approach rather than re-sternotomy. In addition, the normothermic heart surgery reduces ischemia-reperfusion injury due to cardioplegia and provides better myocardial protection.

Redo Beating Heart MVR



Via Limited Anterior Thoracotomy

March 1, 2012 / 13:30-15:00 CLINICAL PERSPECTIVES IN CORONARY DISEASE – ORAL PRESENTATIONS

OP-150 COMPARISON OF THE ANTI-ANGIOGENIC EFFECTS OF HEPARIN SODIUM, ENOXAPARIN SODIUM, AND TINZAPARIN SODIUM BY USING CAM ASSAY

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[2]Department of Pharmacology, Cumhuriyet University School of Medicine, Sivas, Turkey
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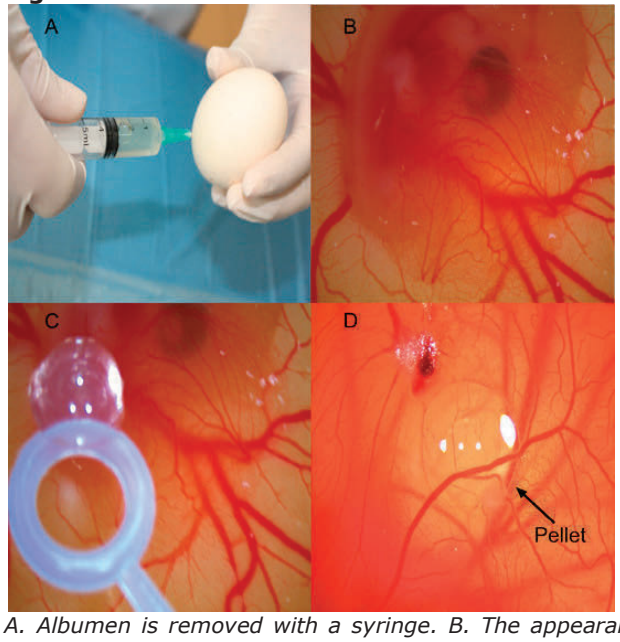
[4]Department of CUTFAM Research Center, Cumhuriyet University School of Medicine, Sivas, Turkey

OBJECTIVE: Unfractionated heparin (UFH) and low molecular weight heparins have been used in cardiovascular clinics for decades as effective inhibitors of fluid-phase coagulation because they enhance anti-thrombin inactivation of factors IIa and Xa. These molecules may be the most frequently used molecules in cardiovascular medicine, especially in the treatment of peripheral and coronary artery occlusive diseases. However, these molecules also have potent anti-angiogenic effects. Whereas, angiogenesis may be the most crucial determinant of the prognosis of cardiovascular diseases and except some specially situation anti-angiogenic effect is not desirable in the most of the cardiovascular disease. In this study, we aimed to compare the anti-angiogenic potency of UFH, enoxaparin, and tinzaparin.
METHODS: The anti-angiogenic efficacies of UFH, enoxaparin, and tinzaparin were examined in vivo by using the chick chorioallantoic membrane model (CAM). Twenty fertilized eggs were used for each studied drug. Drug solutions were prepared in 10 IU and 1 IU/10 µl concentrations. Decreases in the density of the capillaries were assessed and scored (Figure 1).
RESULTS: All 3 drugs showed anti-angiogenic effects on the CAM at the 10 IU/10µl concentration. However, the anti-angiogenic score of the UFH was significantly higher than that of enoxaparin and tinzaparin at 1 IU/10µl and 10 IU concentrations (Table 1).
CONCLUSIONS: Angiogenesis is the formation of new blood vessels from pre-existing vasculature. From the cardiovascular perspective, angiogenesis may be the most crucial determinant of the prognosis of cardiovascular diseases and is therefore an excellent therapeutic target. The therapeutic expectation from an anti-coagulant molecule for cardiovascular medicine is the ability to provide complete anti-coagulation without inhibition of angiogenesis.
Our results suggest that UFH, enoxaparin sodium, and tinzaparin sodium have anti-angiogenic effects on the CAM at 10 IU/10 µl concentration, probably

via impairment of proliferation in endothelial cells. However, in our study, the most apparent anti-angiogenic effect was observed in UFH. Besides, it was also observed that the anti-angiogenic effects of tinzaparin was dose dependent, although at the highest doses, the magnitude of anti-angiogenic potential was still less that of UFH. Contrastingly, the anti-angiogenic effect of UHF was independent of dosage.
In the light of the our findings, we think that an anti-coagulant molecule with a less and dose dependent anti-angiogenic effect, as in the case of tinzaparin, may be more desirable incase of cardiovascular disease related with insufficient angiogenesis. Further investigation into the prognostic significance of these findings is required.

Figure



A. Albumen is removed with a syringe. B. The appearance of the chorioallantoic membrane (CAM) through a window on the egg shell (×8). C. The placement of the pellet on the CAM (×8). D. Inhibition of the capillaries on the CAM (score:1) by the drug (×8).

Table 1

	10 IU/10 µL	1 IU/10 µL	P value
UFH	0.80	0.55	0.785
Enoksaparin	0.10	0.05	0.286
Tinzaparin	0.15	0.00	0.022

The average anti-angiogenic scores of the UFH, Enoxaparin, and Tinzaparin.

March 1, 2012 / 15:00-16:30 ECHOCARDIOGRAPHY FOR CARDIOVASCULAR SPECIALISTS: SEEING IS BELIVING – ORAL PRESENTATIONS

OP-158 THE SURGERY FOR A VERY RARE CASE OF CORONARY ARTERY ARTERIOVENOUS FISTULA WITH CORONARY BYPASS SURGERY: DOUBLE CORONARY ARTERY TO PULMONARY ARTERY FISTULA AND OTHER SIX CASE REPORT

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OBJECTIVE:A congenital coronary arteriovenous fistula is adirect communication between a coronary artery and the lumen of any one of teh four cardiac chambers, the coronary sinus or tributary veins, or the superior vena cava, pulmonary artery or the pulmonary vein. The right coronary artery or its branches site of the fistula in 50 – 55% of cases. We have six cases at three year time and we want to share this rare cases.
METHODS: Case VII:: A 54 years old male patient. Main symptoms were dispnea, fatique, angina and till last 6 monts. NYHA capacity was Class III and EF was 40%, PAP was 65 mmHg. He has two vessel coronary artery disease and a fistula between right main coronary artery + left anterior descending coronary artery and pulmonary artery. We have performed CABG * 2 + closure from within the pulmonary artery and the fistula tract was colsed by running suture to its right coronary and LAD arteries ends. He has no symptom at the sixth month control and the EF is now 50% and PAP is 35mmHg.
CONCLUSIONS: Gaint aneurysm and the complicated with myocardial infarction and valve anomalies and the malign pulmonary hipertension are the main causes of the hospital mortality.

March 1, 2012 / 17:00-18:30 PERIPHERAL ARTERIAL DISEASE: THE ROAD MAP – ORAL PRESENTATION

OP-159 IS N-ACETYLCYSTEINE MORE VALUABLE THAN WE THINK? THE INHIBITORY EFFECT OF N-ACETYLCYSTEINE ON INTIMAL HYPERPLASIA IN A SURGICAL ANASTOMOSIS MODEL ON RABBIT CAROTID ARTERY. AN EXPERIMENTAL RESEARCH

Y. Kuserli[1], E. Şişli[1], A. A. Kavala[1], B. U. Ergur[2], Ş. B. Ugurlu[1], O. Oto[1]
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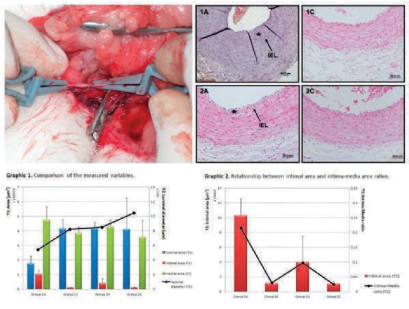
[2]Department of Histology and Embryology, Dokuz Eylul University, Izmir, Turkey

OBJECTIVE: The aim of this study is to assess the inhibitory effect of NAC on the formation of intimal hyperplasia in an anastomosis model of vascular injury.

METHODS: Fourteen New Zealand type rabbits were randomly divided into a control (group 1, n=7) and a NAC (group 2, n=7) group. The study group was given 150 mg/kg/day NAC for 21 days. Each group was divided into 2 subgroups in which, right common carotid artery (CCA) was transected and anastomosed in an end-to-end fashion (group 1A and 2A) and the left CCA was extracted for control (group 1C and 2C). At the end of the twentyeighth day, the rabbits were sacrified after the anastomozed and the contralateral CCA segments were extracted. The specimens were prepared, cut at 5 µm sections and stained with hematoxylin-eosin. The luminal diameter (LD), luminal (LA), intimal (IA) and medial areas (MA) at the level of anastomosis were measured. The intima-media area ratio (IMR) was calculated. A p value of less than 0.05 was considered statistically significant.
RESULTS: Every subject of the experiment survived. The LD was significantly lower in both anastomosis groups than their controls (p=0.002, 1A–1C; p=0.013, 2A–2C). The LD was significantly higher in group 2A than that of group 1A (p=0.002). The LA in group 2A was significantly higher than that of group 1A (p=0.002). The MA of group 2A and 2C did not reveal significant difference (p=0.75). MAs were higher in both anastomosis groups but none of the analyses showed significant difference (p= 0.15). The IA was significantly lower in group 2A when compared to 1A (p=0.013). The IMR in anastomosis groups was significantly higher than their controls (p=0.002, 1A–1C; p=0.003, 2A–2C). The IMR was significantly lower in group 2A than that of group 1A (p=0.025). With the treatment of NAC, a reduction of 61.5% in IA, 54.7% in IMR and an increase of 57.9% in LA, 36.4% in LD was achieved.
CONCLUSIONS: The results of this study suggest that in an end-to-end anastomosis model, NAC reduced the formation of intimal hyperplasia in early period. Further investigations with NAC are necessary to optimize it and attenuate IH in anastomosis models. Further studies are needed for evaluating long-term benefits of NAC on IH.

Figure 1. Surgical and histological images together with the comparison graphics of the measured variables.



** Revealed in the upper left is the completion of the surgical anastomosis on rabbit carotid artery. In the upper right the histological images are shown in all groups. IEL: internal elastic lamina. Note the intimal thickening in group 1A and compare with group 2A. Graphic 1 includes the relationship between the luminal, intimal, medial areas and the luminal diameter. Note that in group 1A, the luminal diameter is lowest and the intimal area is highest. Moreover, also shown in graphic 2, the intimal area together with intima-media ratio and luminal diameter is lower in group 2A than that of group 1A.*

Table 1. Statistical comparison results of the variables.

Variable	Groups compared	z	p
Luminal diameter	1A – 1C	-3.13	0.002*
	2A – 2C	-2.49	0.013*
	1A – 2A	-3.13	0.002*
	1C – 2C	-2.75	0.006*
Luminal area	1A – 1C	-3.13	0.002*
	2A – 2C	-2.49	0.75
	1A – 2A	-3.13	0.002*
	1C – 2C	-0.57	0.56
Intimal area	1A – 1C	-3.13	0.002*
	2A – 2C	-3.13	0.002*
	1A – 2A	-2.49	0.013*
	1C – 2C	-0.96	0.34
Medial area	1A – 1C	-1.85	0.064
	2A – 2C	-1.21	0.22
	1A – 2A	-1.21	0.22
	1C – 2C	-0.32	0.75
Intimal-media ratio	1A – 1C	-3.13	0.002*
	2A – 2C	-3.003	0.003*
	1A – 2A	-2.236	0.025*
	1C – 2C	-1.34	0.18

** Comparisons that are statistically significant.*

OP-166 FEMORAL ARTERY PSEUDOANEURYSMS FOLLOWING PERCUTANEOUS CORONARY INTERVENTIONS

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OBJECTIVE: The femoral artery cannulation is commonly preferred approach for the percutaneous coronary interventions. Pseudoaneurysm of the femoral artery following intervention is rarely seen in practice. However it extends the hospitalization period and causes additional morbidities.
METHODS: Between January 1999 and January 2011 femoral cannulation was performed for diagnostic and therapeutic percutaneous coronary intervention in 12161 patients in Cardiology Department in our hospital. Of these patients femoral artery pseudoaneurysm was diagnosed in 24 patients (%0.2). Following phsysical examination, doppler ultrasonography or magnetic resonance angiography imaging was performed for all patients to confirm the diagnosis. Of these patients, 17 were operated under

local anesthesia and 7 didn't give informed consent for operation and were followed clinically.
RESULTS: Of the patients operated; 10 were male and 7 were female. Pseudoaneurysm was located on common femoral artery in 10 patients and on superficial femoral artery in 7. We didn't determine any pseudoaneurysm on profunda femoris artery. The puncture site was repaired primarily under local anesthesia and the patients were followed postoperatively. All patients were discharged without any complicaton.
CONCLUSIONS: Inadequate compression following the femoral artery cannulation for percutaneous coronary intervention, obesity and inappropriate catheter usage increase the risk of development of a pseudoaneurysm. In definitive diagnosis, arterial doppler ultrasonography must be performed. Under local anesthesia, it is possible to treat these lesions successfully.

OP-167 MORTALITY AFTER ELECTIVE VASCULAR SURGERY

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OBJECTIVE: Mortality after elective vascular surgery is usually due to systemic reasons. In this study, we aimed to investigate the causes of mortality after elective vascular surgery at our clinic.
METHODS: We included 864 patients operated for elective vascular surgery at our clinic between January 2005 and January 2011 in this study. All patients were evaluated for systemic risks preoperatively. All datas were recorded for age, sex, operation performed, accompanying systemic diseases, intensive care unit stay and mortality reasons.
RESULTS: Totally 864 elective vascular operations were performed under general anesthesia between January 2005 and January 2011. Total mortality was 20 (2.3%). 19 were male and one female. Mean age was 66.1±10.3 (49-85). Mean intensive care unit stay was 8.1± 7.3 days (1-23). In preoperative evaluation, 5 of those had hypertension, 10 patients had coronary artery disease, 3 had diabetes, 3 had cerebrovascular occlusive disease an done had chronic renal failure. Mortality occured in 4 (20%) of the patients operated for aortobifemoral bypass, in 4 (20%) femoropopliteal bypass, 3 (15%) aortobifemoral and bilateral femoropopliteal bypass, 3 (15%) carotid thromboendarterectomy, 1 (5%) aortofemoral bypass, 1 (5%) axillofemoral bypass and 1 (5%) crossfemoral bypass cases. Mortality was due to cardiac reasons in 7 (35%) patients (low cardiac output syndrome, arrhythmia), multiple organ insufficiency in 4 (20%) patients, pneumonia in 3 (15%) patients, gastrointestinal complications in 3 (15%) patients (mesenteric ischemia and bleeding), sepsis in 1 (5%) and neurologic reason in 1 (5%) patient.
CONCLUSIONS: Detailed preoperative evaluation prior to elective vascular surgery is noteworthy. Cardiac complications are the leading causes of mortality in elective vascular surgery performed patients.

March 2, 2012 / 08:30-12:00 ADVANCES IN AORTIC VALVE SURGERY – ORAL PRESENTATIONS

OP-168 CALIBRATED CUSP SIZERS TO FACILITATE AORTIC VALVE REPAIR: DEVELOPMENT AND CLINICAL APPLICATION

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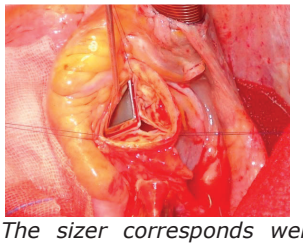
OBJECTIVE: To develop a standardized device for intra-operative aortic valve assessment during aortic valve repair procedures, and then to evaluate its capability to facilitate intra-operative decision-making and to enhance the chance for a perfect restoration of aortic valve competence.
METHODS: Based on the natural mathematical relationships between the components of the human tri-leaflet aortic valve, computer-assisted design software was used to construct a theoretical three-dimensional (3-D) model of the aortic root. Next, the 3-D geometry of a single aortic cusp in the closed position was replicated across a range of proposed aortic root diameters (at odd numbers from 19 mm to 31 mm), and representations of these aortic cusps were manufactured in a steel-leaflet form. These sizers were then used clinically to guide the implementation of established aortic valve repair techniques in 10 consecutive patients (7 males, mean age 43 years) with severe (>= 3+) aortic valve regurgitation (degenerative etiology in 2 patients and annulo-aortic ectasia in 8 patients).
RESULTS: Valve repair was successful in all cases, and no procedure was converted to prosthetic valve replacement. Procedures performed were 6 aortic annuloplasty procedures (correction of aorto-ventricular junction and sino-tubular junction) without cusp correction, 2 aortic annuloplasty procedures with cusp free-edge plication, and 2 aortic valve re-implantation (David-III) procedures. Concomitant cardiac procedures included 6 mitral valve repairs, 1 mitral valve replacement, 4 tricuspid valve repairs, and 1 coronary artery bypass grafting operation.
At a median follow-up was 5.5 months, aortic valve function remained stable, with aortic regurgitation <= 1+ in every patient and no significant gradient across the aortic valves (13±4 mmHg). Aortic cusp coaptation heights measured 5±1 mm, and valve cusps met at the middle distance (effective leaflet height 9±2 mm) between the nadir of their insertion and the sino-tubular junction.
CONCLUSIONS: This preliminary clinical experience indicates that the newly developed calibrated cusp sizers can provide reliable insight into the mechanism of aortic valve insufficiency, and can guide aortic valve repair techniques successfully. The simplicity and reproducibility of this method should assist in its dissemination and further increase the percentage of aortic valves that are repaired as compared to current practice.

Intra-operative photograph of the cusp sizer in use.



The sizer corresponds well with the inter- commissural distance, inner surface area and free-edge length of the cusp.

OP-169 NOVEL AORTIC VALVE RECONSTRUCTION USING AUTOLOGOUS PERICARDIUM FOR THE DISEASED CONGENITAL UNICUSPID AORTIC VALVE

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OBJECTIVE: The unicuspid aortic valve is a rare anatomical variant but may require intervention during the younger age for severe valve dysfunction. We introduce a new reconstructive technique for the stenotic and regurgitant unicuspid valve by creating three cusps with glutaraldehyde treated autologous pericardium.

METHODS: All fourteen patients had the unicommissural unicuspid aortic valve. The sole commissure was located between left-coronary and non-coronary cusps in 9 patients, between left-coronary and right-coronary cusps in 5 patients. The technique and preliminary results of our original aortic valve reconstruction had been already presented at the annual meeting of the European Association For Cardio-Thoracic Surgery in 2009 and 2010. Operative procedure is started from harvesting pericardium. Harvested pericardium is treated with 0.6% glutaraldehyde solution for 10minutes. After the resection of diseased leaflets, we measure the distance between each commissures with self-developed sizer. Then, we trim the treated pericardium with self-developed template. Prepared autologous pericardium is sewn independently to the annulus. From April 2007 through September 2011, we have performed 404 cases of original aortic valve reconstruction using glutaraldehyde treated autologous pericardium. During the same period of time, we encountered 14 patients with the unicuspid aortic valve including 12 males and 2 females. Mean age of 14 patients was 49.0±18.5 years old (14 – 78). Four patients had aortic stenosis (AS), two had aortic regurgitation (AR), and 8 patients had both. No patients had any previous intervention. Our original aortic valve reconstructive technique is characterized by the independent reconstruction of all three leaflets with separate measurement of length between each commissure. With this technique, it is easy to create the new commissure at the higher point along with raphe as the same level with one normally existing commissure. Concomitant procedures included five ascending and hemi-arch aortic replacements and one closure of patent foramen ovale.

RESULTS: No early mortality or major morbidity was recorded. Post-operative echocardiography showed trivial or no AR. Post-operative average peak pressure gradient through newly created aortic valve was 10.5±4.6 mmHg. Mean follow-up period was 337.4±127.6 days. All 14 patients are in good condition. No re-operation or additional intervention has been necessary.

CONCLUSIONS: Both stenotic and regurgitant unicuspid aortic valves could be manufactured nicely by our original aortic valve reconstructive technique. With this technique, replacement with artificial prosthesis can be avoided in patients with both stenotic and regurgitant unicuspid aortic valves. We continue to study the long-term results.

OP-170 IMPACT OF CONCOMITANT CORONARY ARTERY BYPASS GRAFTING ON IN-HOSPITAL OUTCOMES IN OCTOGENARIANS UNDERGOING AORTIC VALVE REPLACEMENT

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OBJECTIVE: There is abundant literature reporting excellent in-hospital outcomes after surgical aortic valve replacement (AVR) in octogenarians. However, there is a paucity of studies reporting in-hospital outcomes of concomitant AVR and coronary artery bypass grafting (CABG) in this group of patients. We compared the impact of concomitant AVR and CABG versus isolated AVR on in-hospital outcomes in octogenarians.

METHODS: From January 2001 to October 2011, 114 consecutive octogenarians undergoing combined AVR and CABG were compared with a control group of octogenarians (n = 68) undergoing isolated AVR. A retrospective analysis of a prospectively collected cardiac surgery database (PATS; Dendrite Clinical Systems, Ltd, Oxford, UK) was performed. In addition, medical notes and charts of all the study patients were reviewed.

RESULTS: The two groups had similar mean age (AVR = 82.3 years vs AVR + CABG = 82.6 years; p = NS), demographics and EuroSCORE (AVR = 11.4 vs AVR + CABG = 13.2; p = NS). Aortic cross clamp time and cardiopulmonary bypass time were longer for AVR + CABG patients (p <0.001). In-hospital mortality (7% after isolated AVR and 9.5% after AVR + CABG; p = NS between groups) and major clinical outcomes for the two groups were found to be similar except for increased need for haemofiltration for patients in the AVR + CABG group (p < 0.05).

CONCLUSIONS: In-hospital outcomes for concomitant AVR and CABG in octogenarians are comparable to those of isolated AVR, justifying the performance of combined AVR and CABG in this high-risk group of patients.

OP-171 EARLY POSTOPERATIVE HEMODYNAMICS AND CLINICAL OUTCOMES OF PATIENTS RECEIVING FREEDOM SOLO AORTIC VALVE REPLACEMENT IN UMMC

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OBJECTIVE: This study aims to assess the early postoperative hemodynamics and clinical outcomes of patients receiving Freedom Solo Aortic valve replacement (AVR).
METHODS: Retrospective review of 4 patients (2 male; 2 female; mean age 49.25 ± 23.78 years; range: from 25 to 73) who underwent AVR with Freedom Solo valve in a single center were enrolled in the study. 2 patients underwent AVR for aortic stenosis and 2 patients for aortic regurgitation. Clinical and biological outcomes were recorded. Echocardiographic parameters were compared between preoperative and 5 months postoperative observation.
RESULTS: There was no early mortality reported. Late death was reported in one patient which was non valve related. The mean transvalvular pressure gradient was 26.50 ± 11.90 mmHg preoperatively and 15.25 ± 10.11 mmHg postoperatively. The mean aortic valve area (AVA) for patients having stenosis improved from 0.74 ± 0.23 cm2 preoperatively to 1.50 ± 0.57 cm2 postoperatively. Preoperatively, the mean left ventricular ejection fraction (LVEF) was 65.75 ± 6.29 % and postoperatively 61.25+_11.84 %. The mean cross-clamp time (CCT) for isolated valve replacement was 80.5 ± 21.92 minutes and 147.00 ± 26.87 minutes. The mean lowest postoperative platelet count recorded was 24.50 ± 6.19 (x109/L). The mean platelet count at discharge was 128.75 ±10.11 (x109/L).
CONCLUSIONS: The result demonstrated good short-term clinical and hemodynamic outcomes in patients who had Freedom Solo aortic valve replacement. However, the study also showed the occurrence of initial severe thrombocytopenia after Freedom Solo valve implantation.

OP-172 CLINICAL AND HEMODYNAMIC EVIDENCE OF BENEFITS AND FEASIBILITY AFTER IMPLANT OF A PERICARDIAL TRUE STENTLESS AORTIC VALVE IN 250 CONSECUTIVE PATIENTS WITH 8 YEARS FOLLOW-UP

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[2]Department of Cardiology, Villa Berica Hospital, Vicenza, Italy

OBJECTIVE: Aim of this study was to investigate the clinical and hemodynamic performance at rest and under stress of the Pericarbon Freedom Stentless (PF) aortic pericardial valve implanted on 250 patients,with up to 8 years follow-up.
METHODS: Between March 2003 and April 2010, a PF stentless valve was implanted on 250 consecutive non selected patients (mean age:68,7yrs with 16% older than 80 years;52,8% males).Mean EuroScore was 8,36.43,2% underwent concomitant procedures. Follow-up time ranged between 6 months and 8 years.Echocardiographic assessment was made at discharge, at 6 months and at last control.In a subgroup of 184 pts the hemodynamic performance was evaluated under moderate stress conditions.
RESULTS: Early mortality in isolated AVR was 0%,1,2% in the entire group.There have been 23 late deaths,19 non–cardiac, leading to 8 years survival of 84,1%.Patients in NYHA class I and II were 90,9% at last follow up. Actuarial Freedom from reoperation was 99,2% at 8 years,no structural valve deterioration has occurred. Freedom from prosthetic bacterial endocarditis was 98% at 8 yrs.The hemodynamic performance showed a mean pressure gradient of 8,4±4,5mmHg at follow up,and an EOA of 1,85±0,7 cm2.The group evaluated under stress conditions showed a mild rise in mean gradients(from 7,8±3,3mmHg to 11,6±4.0mmHg), yet associated to increased EOA(from 1,86±0,69 cm2 to 1,96±0,71 cm2).
CONCLUSIONS: The clinical performance of PF confirms favorable durability and freedom from events in the medium term.The PF showed also excellent hemodynamics along with slight increase of EOA under stress, indicating valve adaptability to different cardiac conditions and suggesting its use also for active,younger people.

OP-173 COMPARISON OF EUROSCORE I AND EUROSCORE II IN PATIENT UNDERGOING AORTIC VALVE REPLACEMENT FOR STENOSIS: A PRELIMINARY STUDY

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OBJECTIVE: Additive and logistic Euroscore I are the most widely used scores in European Countries for the calculation of 30-days mortality following cardiac surgery. They generally overestimate mortality at lower scores and underestimate mortality at higher scores. Recently, a second version of the Euroscore has been introduced. Our purpose is to evaluate the reliability of the new Euroscore compared with the old version in patients undergoing aortic valve replacement for stenosis.
METHODS: We analyzed retrospectively 906 patients that underwent cardiac surgery in our institution from 2003 to 2011. Inclusion criterium was: aortic valve stenosis with indication for elective replacement. Exclusion criteria: sepsi, endocarditis, aortic dissection, pregnancy. The following point of outcome were investigated: death within 30-days, ICU staying, postoperative atrial fibrillation, postoperative renal failure, bleeding. The additive and logistic Euroscore I and the Euroscore II were calculated for every single patient. We tested data using Somers'D test and T-student.
RESULTS:120 patients met the criteria of the study. 84,17% of the patients underwent isolated aortic

valve replacement, 10,83% underwent concomitant CABG, 2,5% underwent concomitant replacement of ascending aorta, 2,5% underwent mitral valve replacement. Mean age was 72,27±8,87 years; 46,67% of patients were female. The prevalence of various risk factor in study sample is shown in Table 1. The mean ICU stay was 2,21 days. The most common morbidity was postoperative atrial fibrillation (38%). Other complications were renal failure (4%) and bleeding with mediastinal revision (3%). There were 6 deaths within 30 days among the study population. The 5% of death rate was lower than the 8,37% of the logistic Euroscore I and 6,75% of additive Euroscore I, but higher than the 2,56% of Euroscore II. The difference between the Euroscore I and our mortality was statistically significant (p=0,049), while Euroscore II predicted mortality was not significantly lower (p=0,106). **CONCLUSIONS:**On the basis of these preliminary findings, the new Euroscore has demonstrated a predicted mortality more reliable than the old version, in patients undergoing aortic valve replacement for stenosis. Further prospective studies could be necessary.

Study Population

	number	percentage
Patients (n.)	120	
associated CABG	13	10,83%
associated Aorta Replacement	3	2,5%
associated MVR	3	2,5%
Male	64	53,33%
Female	56	46,67%
	average	st dev
Age	72,27	8,87
IDDM	2,5%	0,16
NIDDM	20%	0,4
Peripheral Vascular Disease	16,67%	0,37
Stroke	3,42%	0,18
Creatinine (mg/dL)	0,96	0,24
COPD	19,17%	0,40
Previous Cardiac Surgery	2,5%	0,16
Ejection Fraction %	55,06	8,81
Euroscore I additive	6,75	2,35
Euroscore I logistic	8,37%	0,07
Euroscore II	2,56%	0,02
Death 30 days	5,00%	0,22
ICU staying (days)	2,21	2,86
Postoperative Atrial Fibrillation	38,66%	0,49
Renal Failure	4,17%	0,45
Bleeding	3,36%	0,18

March 2, 2012 / 10:30-12:00 HEART FAILURE, MYCARDIAL AND PERICARDIAL DISEASE: WHERE ARE WE STANDING IN 2012 – ORAL PRESENTATIONS

OP-176 OUTCOME OF LVAD IN ISCHEMIC VS NONISCHEMIC CARDIOMYOPATHY PATIENTS

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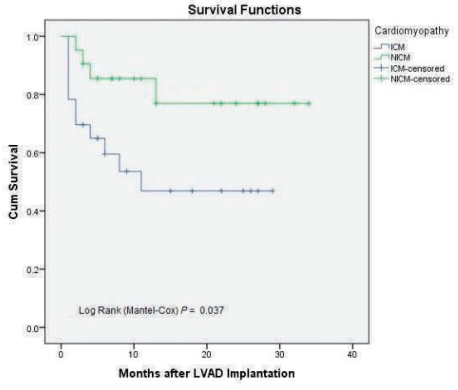
OBJECTIVE: No clinical study compares outcomes of left ventricular assist device (LVAD) implantation in patients with end-stage heart failure secondary to ischemic cardiomyopathy (ICM) & non-ischemic cardiomyopathy (NICM). Purpose of this study is to analyze the outcome of LVAD therapy in these 2 cohorts of patients.
METHODS:44 patients had Heartmate 2 LVAD implantation between September 2009 & August 2011. Charts were retrospectively reviewed & data accumulated was statistically analysed.
RESULTS:23 (52%) presented with ICM. Average age in ICM was 63.7 ± 6.8 years as opposed to 53.9 ±16.3 in NICM (p= 0.017). 78% of ICM & 67% of NICM group were male (p=NS). 43.5% of ICM had undergone previous cardiac operation vs 9.5% of NICM (p=0.012). Implant strategy was bridge to transplant in 78% of ICM & 67% of NICM (p=NS); and destination therapy in 22% of ICM & 33% of NICM (p=NS). 30-day mortality rate was 17% in the ICM & 0% in the NICM (p =0.06). 1 year mortality was 39% for ICM and 19% for NICM (p=0.14). On multivariate analysis, ICM emerged as an independent predictor of mortality (OR: 3.19). Variables such as serum creatinine, inotropic or vasopressor requirement, IABP use or complex operations involving aortic or tricuspid valves at the time of LVAD placement did not impact mortality.
CONCLUSIONS: This report, based on a non-matched cohort of 44 patients, demonstrates that in an era of selective criteria for LVAD implantation, ICM emerges as an independent predictor of mortality. These patients tend to be older, & are more likely to be undergoing re-operative sternotomy. These results should form the basis for a larger scale investigation of LVAD implantation in ICM patients.

Survival Curve



OP-177 HEMODYNAMIC SUPPORT REQUIRES INTEGRATED APPROACH COMPARING PLVAD VS. IABP IN PATIENTS EXPERIENCING LEFT VENTICULAR FAILURE

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OBJECTIVE: Cardiogenic shock caused by left ventricular failure remains the most common cause of death in patients with acute myocardial infarction, leading to fatal complication of interactable heart failure, associated with high mortality.
Despite IABP remarkable performance, It is the method of choice assists the failing left venticle and accelerates the functional recovery of stunned myocardium.An pLVAD represent an emerging option for patial or total circulatory support, may help to bridge patients to recovery from LVF. Aim is to evaluate wether pLVAD will demonstrate superiority over IABP taking into consideration their efficacy and safety in patients with cardiogenic shock and experiencing LVF
METHODS: In a prospective, randomized study, 15 patients with severe depression of LV function, haemodynamic support and LV unloading derived from IABP is insufficient to reverse CS. The use of pLAVD with circulatory support might be beneficial in CS patients not responding to standard treatment including IABP support,large amounts of infomation have been collected includes CI, MAP, PCWP, lactic acidosis, hemolysis,Relative risks for 30-days mortality, leg ischaemia, bleeding, and sepsis.
RESULTS:pLAVD patients achieved significantly greater increases in CI,MAP and PCWP.Similar 30-day mortality was observed using pLAVD compared with IABP. patients treated with IABP tended to have a higher incidence of leg ischaemia.Bleeding was significantly more observed in pLAVD patients compred with patients treated with IABP.The use of positive inotopic drugs or vasopressors was expected to be lower in patients with pLAVD.Serum lactate levels were comparable for both groups. The pLAVD patients also required more packed red blood cells and fresh- frozen plasma.
CONCLUSIONS: Although,strategy is to treat with reperfusion. In comparision with IABP, pLAVD significantly improves hemodynamic parameters in patients with cardiogenic shock and even in patients failing IABP.The decision making process on how to treat requires an integrated stepwise approach, although the evidence supporting this is very limited.

OP-178 DIASTOLIC HEART FAILURE IN THE POSOPERATIVE HEART

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OBJECTIVE: The majority of patients who nowadays undergo coronary artery bypass surgery have an variety of co-morbid conditions that include diastolic dysfunction.
Abnormalities of diastolic function may lead to diastolic heart failure that could complicate their post operative course
METHODS: We have seen a pattern in some our postoperative patients of heart failure with cardiac index in the face of normal or near normal left ventricular ejection fraction. These criteria go with diastolic heart failure (DHF). There are no published data on the incidence of DHF in the postop heart. We are looking at this prospectively and have some prelimenary data to present
RESULTS: Diastolic heart failure can occur in the postoperative heart. Diastolic dysfunction however is more common. Typically seen in patients with hypertensive or valvular heart disease, diabetes mellitus, myocardial ischemia, as well as in hypertrophic or restrictive cardiomyopathy, and is more prevalent in the elderly. The interesting fact DHF is not readily recognized and therefore remains under-reported.
CONCLUSIONS: Diastolic heart failure can develop in the post operative heart. Echocardiography is the best diagnostic tool under these circumstance.. Because of the nearly identical clinical features it is important to make the distinction between diastolic or systolic heart failure.

March 2, 2012 / 13:30-15:00
NEW HORIZONS IN CARDIOVASCULAR IMAGING – ORAL PRESENTATIONS

OP-188 PREDICTIVE VALUE OF ECHOCARDIOGRAPHY PERFORMED BEFORE PRIMARY PERCUTANEOUS CORONARY INTERVENTION FOR ACUTE MYOCARDIAL INFARCTION

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OBJECTIVE: To assess the value of echocardiography performed before primary PCI for AMI in prediction of LVF recovery during in-hospital follow up period.
METHODS: We prospectively enrolled 39 consecutive pts (34male, 5 female, mean age 57±11 years) presented at our institution for their first AMI, successfully treated with primary PCI. They all

underwent 2-dimensional and Doppler echocardiography immediately after their admission to catheterization laboratory and were followed until discharge. Clinical and echocardiographic variables before primary PCI were correlated with the LVF and the presence of congestive heart failure (CHF) during in-hospital period.
RESULTS: Among clinical and echocardiograpic variables obtained before primary PCI myocardial performance index- MPI (p=0.022), left ventricular ejection fraction- LVEF (p=0.017) and WMSI (0.021) were significant univariate predictors of LVEF during in-hospital recovery period. The only multivariate predictor of in-hospital LVEF was baseline LVEF. Five patients had the signs of CHF during pre-discharge period. End-diastolic LV volume (p=0.045), LVEF (p=0.05), WMSI (p=0.033) and MPI (0.004) were significant univariant predictors of CHF according to logistic regression analysis. However, MPI was the only multivariate predictor of CHF during in-hospital recovery period.
CONCLUSIONS: In patients treated with primary PCI for AMI, LVEF and MPI obtained before the procedure are strong predictors of in-hospital LVF and the presence of CHF. Thus echocardiography performed before primary PCI gives very important prognostic information about recovery of LVF.

OP-191 IN HOSPITAL ACUTE MASSIVE PULMONARY EMBOLISM, PROACTIVE SURGICAL INTERVENTION

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OBJECTIVE: Background Massive pulmonary embolism (PE) is life-threatening complication in hospitalized patients. Optimal management of massive PE remains controversial. Despite advances in thermbolytic therapy major bleeding was reported in many series. Urgent surgical embolectomy has been the treatment of choice in patients with hemodynamic instability. We believe that patients with more or less stable hemodynamic, aggressive surgical intervention have beneficial with good outcome and still superior to medical treatment.
METHODS: Patients: 19 hospitalized patients suffered massive PE. Diagnoses were as follow: Post partum (n: 6), post RTA (n: 5), acute abdomen (n: 2), diagnosed intra-op (n: 2), failure of thrombolytic therapy (n: 2), one preop and one transferred from another hospital as acute on top of chronic PE. TEE confirmed the presence of huge clots in the heart and intra-pericardial pulmonary arteries. All patients were underwent surgical removal of the clots.
RESULTS: Mean bypass time was 123.83 min, clamp time 57.50 min. five patients suffered of low cardiac output required vasopressor and dopamine early postoperative. The mortality was one patient transferred from another hospital with acute on top of chronic massive PE and one preop patient waiting open heart surgery.
CONCLUSIONS: Early aggressive surgical intervention for even hemodynamically stable patients may constitute an important form for treatment of in hospital massive pulmonary embolism with good outcome.
TEE is the best tool to confirm the presence of associated intra-cardiac and intra-pulmonary thrombi helping the surgeon to locate embolus site.

March 2, 2012 / 10:30-12:00
IMAGING AS A GUIDE FOR THE CLINICIAN – ORAL PRESENTATIONS

OP-221 ACUTE EFFECT OF PRELOAD REDUCTION BY HEMODIALYSIS ON CONVENTIONAL AND NOVEL ECHOCARDIOGRAPHIC PARAMETERS OF LEFT VENTRICULAR FUNCTION

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OBJECTIVE: Conventional echocardiographic parameters of left ventricular (LV) function have been shown to be load-dependent; however, the impact of preload reduction on speckle tracking echochardigraphy parameters such as global longitudinal strain/ strain rate and torsion of LV function is incompletely understood. The aim of this study is to assess left ventricular longitudinal and torsion myocardial functions by speckle tracking imaging in patients with an acute preload reduction by hemodialysis.
METHODS:: Twenty-seven chronically uremic patients (mean age 42 ± 18 years; 16 males, 11 females), without overt heart disease were included into the study. The patients had been on maintenance hemodialysis for at least 1 month and hemodialysis sessions were three times per week. This patients underwent echocardiography 1 hour prior to and 1 hour following regular hemodialysis. Conventional echocardiographic and speckle tracking echocardiography images were recorded. Global longitudinal peak strain, apical and bazal rotation and torsion parameters were measured.
RESULTS: Hemodialysis led to reduction in LV end-diastolic volume (P, 0.001), end-systolic volume (P, 0.001), and E/E' ratio (P, 0.001). Conversely, all conventional echocardiography parameters were not significantly affected. Global LV longitudinal peak strain was -15.56 ± 2.04%, at baseline and decreased to -14.58 ± 2.39% after hemodialysis (P, 0.021). Segmental analysis showed that the decrease in PSLS after dialysis was most prominent in mid-LV segments. Apical and bazal rotation and torsion values were similar between pre, post-hemodialysis patients.
CONCLUSIONS: Left ventricular global longitudinal peak strain and torsion have been proposed as novel indices of systolic functions. Although torsion parameters are not sensitive to acute changes in load, global longitudinal peak strain is sensitive to acute changes in load, an important factor that needs to be considered in their application as indices of systolic function.

March 2, 2012 / 13:30-15:00 NON - INVASIVE AND INVASIVE IMAGING: A PRACTICAL SOLUTIONS FOR CARDIOVASCULAR SPECIALISTS – ORAL PRESENTATIONS

OP-228 LEFT VENTRICULAR MECHANICS IN ISOLATED BICUSPID AORTIC VALVE DISEASE: 2D STRAIN IMAGING STUDY

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OBJECTIVE: In this study, we hypothesized that subclinical impairment of left ventricular (LV) mechanical function in bicuspid aortic valve (BAV) patients is independent of valvular hemodynamics represented by valvuloarterial impedance and aortic elastic characteristics. Therefore, we aimed to test left ventricular mechanics in cases of isolated non-stenotic BAV with non-dilated aorta.
METHODS: Thirty-three patients with isolated BAV exhibiting non-dilated aorta, and 25 age-and gender-matched healthy subjects were included in the study. Patients with aortic valve velocity > 1.5 m/s and mild-to-moderate aortic regurgitation, ascending aorta diameter >3.5 cm were excluded from the study. Aortic elasticity parameters and valvulo-arterial impedance were calculated. Strain measurements were reported as the peak longitudinal strain (LS) for 4C (four chamber), LAX (long axis), 2C (two chamber) views. Strain rate (Sr) measurements were reported as the peak systolic strain rate (Sr-sm), early diastolic strain rate (Sr-em) and late diastolic strain rate (Sr-am) for 4C, LAX, 2C views.
RESULTS: Systolic and diastolic diameters of the ascending aorta, aortic elastic properties (aortic strain, aortic distensibility, aortic stiffness and aortic elastic modulus), and valvulo-arterial impedances were found to be comparable between the BAV and control groups.
BAV group was observed to have statistically significantly lower 4C (18.9±1.7 vs 17.8±1.5, p=0.02), LAX (19.7±1.7 vs 17.7±1.3, p=0.001) and 2C (20.1±1.8 vs 17.7±1.2, p<0.001) peak longitudinal strain values compared with the control group. Moreover, LV-GS values were found to be significantly lower in the BAV group than in the control group (19.6±1.1 vs 17.7±0.9, p<0.001). However, there was no statistically significant difference between the groups in terms of Sr-sm, Sr-em ve Sr-am values in the 4C, LAX, and 2C views.
CONCLUSIONS:BAV might affect LV systolic functions, assessed by 2D strain imaging, in a fashion independent from the valvular dynamics and aortic elasticity. This might show that BAV is not only a valvular disease, but possibly a ventricular disease as well.

OP-230 THORACIC HERNIA MIMICKING ACUTE CORONARY SYNDROME

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OBJECTIVE: In this case report, diagnostic process is discussed in a male patient admitted to emergency ward with complaints of excessive epigastric and retrosternal pain.
METHODS:63 years old male patient applied to emergency ward with the complaint of sudden onset, continuous and tough retrosternal burning pain radiating epigastrium.During admission, blood pressure was 90/50 mmHg and pulse rhytmic 120/per minute.Patient was sweating, pale and rhytmic peripheral pulses able to be palpated and not so superficial.On ECG, there was common T wave abnormalities.Troponin T level was negative.The patient was taken Cath lab for Acute Coronary Angiography due to prediagnosis of Acute Coronary Syndrome.On coronary angiography, surprisingly, there was no coronary artery pathology but large bowel flexuras observed in the thorax.Computed Tomography (CT) was planned.On CT, Large bowel,stomach and spleen were all herniated into the thorax.He was taken into the operating theatre urgently and performed resection of spleen and other necessary surgical approaches.
RESULTS: The patient was discharged absolutely normal with no complication.
CONCLUSIONS: There exists four diagnostic criteria in the acute coronary syndrome.Among clinical presentations, Electrocardiography (ECG), biochemical markers and echocardiographic clues, Acute coronary syndrome should be suspected at the presence of at least two ones.In this case, there were two ones.Though thoracic hernia mimics acute coronary syndrome in this case,before making decision for Coronary angiography,we consider that it should not be missed out such basic, cheap and fast method as thorax x.ray.

March 2, 2012 / 15:30-17:00 MASTERING IN SURGICAL MYOCARDIAL REVASCULARIZATION – ORAL PRESENTATIONS

OP-237 DOES CORONARY BYPASS SURGERY EFFECT THE HEART MUSCLE IN WHICH BEATING ON-PUMP OR OFF-PUMP?

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OBJECTIVE: This study was designed to investigate the effect of heart-lung machine on myocardium in beating heart coronary bypass patients operated with or without heart-lung machine support.
METHODS:A total of 20 randomized patients undergoing isolated CABG surgery at our instutition were prospectively enrolled in this study and divided into 2 groups. Patients in group 1 underwent off-pump surgery and patient in group 2 underwent beating heart surgery with heart-lung machine support. Blood samples were collected preoperatively to determine creatine kinase (CK-MB), troponin I (cTnI), brain natriuretic peptid (BNP) and C-reactive protein (CRP) levels and 4, 12, 24, 48 hours after surgery for the levels of cTnI; 4 and 24 hours after for pro-BNP and 24 hours after for CRP levels.
RESULTS: In view of the low effected vessel number, in group 1, number of distal anastomosis (2.1±0.3) were significantly lower than group 2 (3.3±0.9) (p=0.004). Among indicators of myocardial injury; there were no differences in CK-MB levels between two groups. In group 2, cTnI levels 12, 24 and 48 hours after surgery were significantly higher. Higher cTnI levels in group 2 may be related to higher ischemia-reperfusion injury due to higher number of distal anastomosis. In group 2, pro-BNP levels for postoperative cardiac function evaluation, were significantly higher 4 hours after surgery. There was no difference between groups in CRP levels as an inflammatory marker.
CONCLUSIONS: Heart-lung machine supported group showed higher concentration of postoperative myocardial injury indicators. But, as the number of distal anastomosis was not homogenius between groups, we can not report that myocardial injury occured much more in heart-lung machine supported group.

OP-238 EVALUATION OF NATURAL Y SAPHENOUS VEIN CONDUITS IN CORONARY BYPASS GRAFTING SURGERY

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OBJECTIVE: Saphenous vein grafts are more frequently used then arterial grafts for coronary revascularization. Location and number of proximal anostomosis may cause some problems when the patient who requires multiple coronary bypass or has a short and calcific ascending aorta. In addition more than the number of anostomosis have brought the failure of the graft due to technical problem. Every added anostomosis extends the duration of cardiopulmonary bypass time. Natural Y saphenous grafts may be easily used in approciate patient to reduce the number of anostomosis, to shorten the total time of operation and to decrease rate of graft occlusion due to technical problem.
METHODS: In this study, we examined total 207 patients whom natural Y saphenous vein graft used. Among 207 patients, 159 patients (76.81 %) were male and 48 (23.19 %) female. The mean age was 61.75 ± 9.27. All patients data were collected retrospectively and evaluated.
RESULTS: Simultaneously, carotid endarterectomy performed 4 patients and aortic valve replacement performed 2 patients as well as coronary artery bypass grafting. Twentyfour (11.59) patients operated emergently. Maximum 5 and minimum 2 distal anostomosis were performed in operation. Mean distal anostomosis number was 3.67 ± 0.61. Two patients who operated emergently due to acute anterior myocardial infarction were died in early stage. Natural Y saphenous vein grafts frequently used between diagonal artery and circumflex artery branches (41.54 %), branches of circumflex artery (25.12 %), branches of left anterior descending artery (13.52 %). Y grafts rarely used between left anterior descending artery and branches of circumflex artery and between branches of right coronary artery.
CONCLUSIONS: Proximal anostomosis number may be reduced and cardiopulmonary bypass time may be shorten while natural Y saphenous vein grafts are using. In addition it's important for anostomosis security to use natural Y grafts. However same security condition is not established if indivual saphenous vein graft is used for sequential bypass.

OP-239 THE RESULTS OF SIMULTANEOUS APPROACH FOR COMBINED CAROTID AND CORONARY ARTERY DISEASES

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OBJECTIVE: Cerebrovascular stroke which is a serious complication has an important place on the morbidity and mortality after coronary artery surgery. Between January 2000 and December 2011, 60 patients underwent combined coronary and carotid artery surgery.
METHODS: During 11 years period, combined surgery were applied to 60 patients who were planned for elective coronary bypass surgery. Among 60 patients, 50 patients (83.3 %) were male and 10 (16.7 %) female. All patients were followed up in early postoperative period in terms of mortality and cerebrovascular stroke.

RESULTS: Surgical therapy was carried out for the left carotid artery in 31 patients and the right carotid artery in 29 patients. While endarterectomy was applied in whole patients, arteriotomy was closed primarly in 19 patients, with saphenous vein in 4 patients and with ePTFE patch in 37 patients. Carotid artery surgery was performed before coronary bypass procedure in all patients. The mean duration of carotid clamping, aortic cross clamp and total perfusion times were 17 ± 3.2 min., 33 ± 11 min. and 65 ± 14 min. respectively. Postoperative transient minor neurological deficit was developed in 2 (3.6 %) patients. Three patients were died of multi organ dsyfunction in postoperative early period. Permanent neurologic deficit was not encountered.
CONCLUSIONS: Carotid arteries should be evaluated in patients who are under risk of postoperative cerebrovascular events before coronary bypass surgery. Simultaneous carotid endarterectomy and coronary bypass surgery is a method of choise for patients with critical carotid and coronary artery stenoses.

OP-240 ABILITY OF HbA1c FOR PREDICTING ADVERSE OUTCOMES AFTER ISOLATED CABG

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OBJECTIVE: The aim of this study is to show whether HbA1c levels do carry any predictive value on postoperative mortality and morbidity in patients who have had an isolated coronary bypass surgery.
METHODS:199 patients undergoing first time isolated CABG were analyzed by enrolling into two groups according to their HbA1c levels [HbA1c<=6.5% (Grup 1), HbA1c>6.5% (Grup 2)].
RESULTS: There were no difference between two groups, in terms of demographical characteristics, risk factors and intraoperative data. The only difference was male to female ratio (group 1 female: 17.5% vs group 2 female: 41.1% with p<0.0001). Despite the fact that group 2 showed a much higher rate of postoperative infection rate (11.8% vs 5.3%), statistically there was no significant difference (p=0.14). On the other hand, there was statistically significant difference among postoperative mediastinitis (0.8% vs 11.8%) and sternal dehiscence (0.8% vs 5.9%) ratios (p=0.01 and p=0.047 respectively). At the same time, patients in the group with HbA1c>6.5%, showed a higher risk of developing postoperative atrial fibrillation (14.5% vs 35.3% with p=0.001). Postoperative mediastinitis, sternal dehiscence and the risk of developing atrial fibrillation, which all showed statistically significant difference, were evaluated with the ROC curve. Areas under the curve were 0.824, 0.749, and 0.657 with accuracy rates 69.3%, 67.3% and 68.3% respectively. Both groups showed no significant difference in terms of mortality and readmission rates for cardiac reasons (p=0.621 and p=0.448 respectively)
CONCLUSIONS: Even though it would be necessary to run clinical studies on larger patient groups showing mid and late-term results, in order to display the effect of HbA1c levels on mortality and morbidity in the post CABG period, we believe that patients with higher HbA1c levels would require a more aggressive control of preoperative glucose levels and a closer postoperative follow-up, as these patients present a higher risk of developing complications such as postoperative mediastinitis, sternal dehiscence and atrial fibrillation.

OP-241 ONE YEAR RESULTS OF THE EARLY REVASCULARIZATION IN ACUTE MYOCARDIAL INFARCTION

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OBJECTIVE: The optimal timing for a patient to undergo CABG after myocardial infarction is unclear, because there have been no randomized trials to answer this question. Un stable patients often need to early and urgent surgery. Also these patients are the most surgical risky patients. We try to give some new perpective for the surgical timing for the acute myocardial infarction beyond the evaluation of the results of these patients.
METHODS:: We have analyzed the 217 unstabl patient's surgical results after acute myocardial infarction with early revascularization. Thirty six patients were performed surgery with cardiopulmonary resusitation from the angio table or from the intensive care unit. The main reasons for the early surgery are; i- hemodynamic instability, ii- cardiopulmopnary resusitaion, iii- in spite of medical or intra aortic baloon treatment continuous cardiac unstabl pain, iv- early 6 to 12 hours of anterior S-T myocardial infarction with a critical LAD lesion, v- malign arryhtymia.
RESULTS:59 patients of the 79 CPR patient were alive (74.68%). In all cases mortality rate was %14.28 (31patients). Mortality rate was 7.97% (11patients) when excluded the CPR patients (138 alive patients). The avarage EF was 47.8 at the second month of the surgery and the NYHA functional capacity was 0-I in 161 patients, II in 17 patients and III in 8 patients. At the end of the first year avarage EF was 50.7 and the NYHA functional capacity was 0-1 in 168 patients, II in 14 patients and III in 4 patients.
CONCLUSIONS: The possible increased risk of early surgery may be balanced against the potential for improved quality of life, life saving results and decreased hospital stay costs.

OP-242 CARDIAC SURGERY OUTCOMES ON PATIENTS > 75 YEARS OLD

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OBJECTIVE: All around the world mean age is increasing. Because of this we have more patients who need cardiac surgery > 75 years old. Nearly 20 years ago age was an indication for surgery but on recent guidelines it has been taken into account. Although this group of patient have more mortality

and morbidity rate in the early postoperative period, long term cardiac event free survival rate has no significant difference. We aim to share our outcomes for patients > 75 years age who underwent cardiac surgery.
METHODS: Between July 2010 - November 2011, in our clinic 82 patient have cardiac surgery > 75 years old. Mean age was 78,4. Distribution of the surgery; 20 (% 24,3) patients have Coronary Bypass Surgery(CABG) (Off- Pump); 43 (%52,4) patients have CABG (on- Pump); 3(% 3,6) patients have Mitral Valve Surgery (MVR); 1 (%1) patient have Aortic Valve Surgery (AVR); 8(%8,6) patient have MVR + CABG; 3 (%3,2) patient have AVR + CABG; 1 (%1) patient have CABG + AVR + MVR; 1 (%1) patient have Tricuspit valve repair; 1(%1) patient Type A Aortic Dissection and 1(%1) patient intracardiac mass operation. Mean discharge day was 7,4.
RESULTS: Mortality was 9 (%9,7) patients. In this group; 5 patient have been CABG (on pump), 2 patients have MVR + CABG, 1 patient AVR + CABG and 1 patient have AVR + MVR + CABG operation. There were no dead on CABG (off-pump) group. 6 patient needed hemodialysis postoperatively. There were no neurologic complication postoperatively.
CONCLUSIONS: For the advanced age patient carefuly preoperative condition, fast surgery especially if possible off-pump surgery is recommended. Additional procedures increase mortality and morbidity. In geriatric population cardiac surgery can be performed with an acceptable mortality and morbidity ratio.

OP-243 HEPARIN RESISTANCE DURING CARDIOPULMONARY BYPASS

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OBJECTIVE: An inadequate response to heparin, known as heparin resistance (HR), has been reported in up to 22% of patients undergoing cardiopulmonary bypass (CPB). Treatment of HR includes administration of additional heparin, fresh frozen plasma (FFP) or antithrombin (AT). The objective of this study is to present the frequency of HR and practical considerations for its treatment in patients undergoing cardiopulmonary bypass at our institution.
METHODS: Data of 876 patients who had elective cardiac surgery requiring the use of CPB between January to April 2008 were retrospectively reviewed. Data collection included: demographic data, types of preoperative anticoagulant/antiplatelet therapy, preoperative hematological and biochemical laboratory results, medical condition, baseline and control activated clotting time (ACT), Heparin need and treatment used, whenever needed.
RESULTS: Heparin resistance, defined as failure of 500 IU per kilogram of body weight of heparin to prolong the activated clotting time (ACT) to 480 seconds or longer, was noted during 89 of 876 (10.2%) patients. In 54 (60.7%) of them, ACTs were titrated to >480 seconds with additional heparin 100 IU per kilogram. Twenty six (29.2%) were given 2 units of fresh frozen plasma shortly before institution of CPB where there was significant augmentation of the ACT immediately after infusion of plasma. Administration of antithrombin concentrate was used in 9 patients (10.1%) which eight of them resulted in satisfactory prolongation of the mean activated clotting time without additional heparin. But in one patient, the target activated clotting time did not achieved, despite administration of greater than 600 U/kg heparin and antithrombin concentrate, and was treated with fresh-frozen plasma.
CONCLUSIONS: Heparin resistance is a relatively frequent problem in cardiac surgery. Treatment with fresh frozen plasma or antithrombin concentrate are both effective but Multiple randomized trials are needed to decide the optimal treatment option.

March 2, 2012 / 17:00-18:30 PERIPHERAL VEINS: A FORGOTTEN TERRITORY FOR DIAGNOSIS AND TREATMENTS – ORAL PRESENTATIONS

OP-253 ENDOVENOUS ABLATION WITH A 1470 NM DIODE LASER FOR THE TREATMENT OF GREAT SAPHENOUS VEIN INSUFFICIENCY: EARLY TERM RESULTS OF A PROSPECTIVE CLINICAL TRIAL

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OBJECTIVE: This prospective study aims to demonstrate the treatment outcomes of endov¬enous laser ablation (EVLA) of GSV insufficiency with a 1470 nm diode laser in an ambulatory setting. We aimed to present the early term results of EVLA procedures that were used to treat great saphenous vein (GSV) insufficiency. The aim of this study is to compare efficacy, early postoperative morbiditiy and patient comfort of a 1470 nm diode laser wawelengths and radial fibre type in treatment of GSV incompetence resulting in varicosities of the lower limb.
METHODS: This prospective study was conducted between March 2011 and May 2011. A total of 95 incompetent GSVs were treated using EVLA with a 1470 nm diode wavelength laser. 95 were treated for varicose veins with saphenous reflux, including 45 females (47.3%) and 50 males (52.7%). These patients ages ranged from 28 to 70 years (median, 49 years). After the EVLA, the patients were monitored using duplex ultrasonography and were assessed clinically at the 2nd postoperative day, 7th day and 1, 3 and 6 months after the surgery. The patients were scheduled for a two day examination after the EVLA to assess the level of pain that each patient was experiencing in each limb.
RESULTS: At the end of a six month follow-up period, the post procedural duplex scans revealed a total occlusion of the treated GSVs in 95 of the

patients (100%). The following complications were observed in the present study: paraesthesia and hypoesthesia (1%), swelling and induration (2%), skin pigmentation (4%), deep vein thrombosis (0%), erythema (1%), and bleeding (1%). The mean visual analog pain score for the entire procedure was $p<0.05$.

CONCLUSIONS: Our early term results of the EVLA procedure were satisfactory, and the results of this study reaffirmed the safety and effectiveness of an EVLA using a 1470 nm wavelength for the treatment of GSV insufficiency. Furthermore patients experienced minimal post procedure discomfort compared to those treated with the current generation of lasers. This may reflecte more specific vein wall injury secondary to the absorption characteristics of the laser energy.

OP-254 JUGULAR VEIN THROMBOSIS ASSOCIATED WITH UPPER RESPIRATORY TRACT INFECTION

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OBJECTIVE: Jugular vein thrombosis is a venous disorder rarer than deep vein thrombosis of lower extremities an may cause fatal complications like pulmonary embolism and sepsis. Jugular vein thrombosis may occur without any underlying predisposing factor, following jugular catheterization or otological infection or as a part of paraneoplastic syndrome. We recently experienced a 67-year-old male with jugular vein thrombosis following upper respiratory tract infection. Because this is a rare condition but may cause serious complications, it has been reported and the probable etiology has been discussed.

METHODS: The patient, who had no complaint priorly, admitted to the neurology department with the complain of dizziness. Physical examination revealed no signs but a histroy of upper respiratory tract infection 10 days before. Laboratory results were within normal range. Carotid and vertebral arterial and venous color doppler ultrasound and neck ultrasound revealed jugular vein thrombosis and multinodular thyroid, respectively. Cranial magnetic resonance imaging showed no pathological feature. Venous magnetic resonance angiography revealed left jugular vein thrombosis and inflammation of paranasal sinuses (Figure 1). Systems scanning including gastrointestinal tract, female genital tract showed no pathological characteristics.

RESULTS: Oral antibiotherapy was given to the patient owing to paranasal sinus infection and low molecular weight heparin and coumarin were given due to the jugular vein thrombosis. Both, clinic and symptomatic improvements were observed at the first week of the therapy. Follow-up controls were performed on the 1st and 3rd months of the therapy and the patient was free of symptoms and all of the laboratory findings were within normal range with optimal INR value.

CONCLUSIONS: Venous thrombosis principally occurs due to endothelial injury/dysfunction, hemodynamic changes (stasis, turbulence) and hypercoagulability (Virchow's triad). There can be no symptoms or signs and clinic signs can be uncertain. Jugular vein thrombosis is a rare vascular pathologic condition. A dignose of this condition should direct the clinicians to make a detailed diagnostic investigation to seek for any underlying malignity.

Jugular Vein Thrombosis

Venous MR Angiography Indicating Left Jugular Vein Thrombosis

OP-255 OUR 2-YEAR CLINICAL RESULTS IN SUPERFICIAL VEIN SURGERY

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OBJECTIVE: Today, despite the usage of minimal invasive new methods in the treatment of insufficiency of vena saphena magna (VSM) and vena saphena parva (VSP), conventional surgical procedures are quite common. The purpose of this study is to evaluate the results of surgical treatment in the patients with venous insufficiency in our clinic.

METHODS:192 patients were evaluated between December 2009-November 2011. Patients with VSM and/or VSP insufficiency underwent superficial venous surgery. Detailed physical examination, venous Doppler ultrasonography, and CEAP classification performed before surgery. Surgical procedures were total or partial stripping of VSM, total stripping of VSP and were choosen according to the physical examination and the results of venous Doppler ultrasonography. Concomitant miniphlebectomies were also performed in the same session with stripping. Surgical procedures were performed under spinal anesthesia. Elastic bandage was applied to all patients in post-operative period. In postoperative second day elastic bandage was put off, and compression stockings was dressed. In one month after surgery follow-up visit, complications and morbidities such as infection, hematoma, numbness in the extremities were analyzed.

RESULTS: Mean age was 24.7. 185 of the patients were male and 7 were female. According to CEAP classification 114 patients were C2, 55 patients C3, 22 patients C4, 1 patient C5. 156 patients underwent VSM stripping, 27 patient were underwent VSP

stripping and 9 patients underwent only miniphlebectomy. Surgery was performed to the left lower limb in 124 patients, right lower limb in 68 patients, both lower limbs in 12 patients. In early postoperative period, miniphlebectomy incision infection was observed in one patient. Hematoma needing intervention was not seen. Numbness was observed in 5 patients in complete VSM stripping group and 1 patient in VSP stripping group. It was seen that these complaints disappeared one month later.
CONCLUSIONS: Today, superficial vein surgery accompanied by detailed physical examination and venous Doppler ultrasonography is an effective and reliable method. Because of the low morbidity rates, it is still widely performed.

OP-256 COMPELLING VASCULAR PRACTICE: ISOLATED VENOUS INJURIES

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OBJECTIVE: Venous injuries, especially of the great veins, are usually not easy to explore and repair for cardiovascular surgeons. In this study, we aimed to evaluate our results in patients operated for isolated venous injuries in last five years.
METHODS:A total of 29 patients with isolated venous injury were operated between January 2006 and January 2011 due to several reasons gunshots, blunt injuries, stab wounds and iatrogenic causes. 8 (27.6%) were female and 21 (72.4%) male with a mean age of 40.5±12.1. Operations were performed under general anesthesia. End to end anastomosis, primary repair, saphenous vein interposition, graft interposition and ligation techniques were used during operations.
RESULTS:13 (44.9%) were injured by iatrogenic causes, 9 (31%) patients were injured by stab wound, 5 (17.2%) were injured by blunt trauma, and 2 (6.9%) were injured by gunshot. Among the isolated vein injuries, 14 of them were iatrogenic inferior vena cava injuries, 6 patients with iliac vein injury, 3 patients with axillary vein injury, 2 patients with brachial vein injury, 2 patients with femoral vein injury and 2 patients with popliteal vein injury.We performed end to end anastomosis in 12 (41.4%) patients, primary repair in 9 (31%) patients, saphenous vein interposition in 6 (20.7%) patients and ligation in 2 (6.9%) patients. Postoperatively two patients developed deep venous thrombosis and one patient developed compartment syndrome.
CONCLUSIONS: In patients with venous injury, quick homeostasis must be maintained, surgical repair must be performed for continuation of venous circulation, anticoagulation must be appropriate for avoiding venous thrombosis.

OP-257 OUR ENDOVASCULAR INTERVERTIONS IN ABDOMINAL AORT ANEURYSMS

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OBJECTIVE:A abdominal aort aneurysm(AAA) is a degenerative or non spesific,progresive vascular disease where the subdiaphragmatic aorta is two times larger in diameter than expected, because of local weakening of the vascular wall. Endovascular interventions are used more common in the care of abdominal aort anevrysm. Some superioritys of endovascular approachs to surgery and good long time results makes this approach more widespread and actual.in this study we present our intraoperative, peroperative and post operative complications of our abdominal aort aneurysm patients who were treated with endovascular stent grafting.
METHODS:51 patients who were treated with endovascular stent graft implantation becouse of abdominal aorta aneurysms and who are followed up by our clinic between 2006 – 2011 are studied retrospectively.The follow up time was between 1 and 62 months. The patients demographic data, hospitalization times, aneurysm diameters, peroperative and post operative complications are studied.
RESULTS:51 patients who had a infrarenal abdominal aort aneurysm were treated with endovascular stent graft implantation.27 patients with infrarenal abdominal aort aneurysm and 24 with aorto-iliac aneurysm were treated with endovascular aproach and follwed up by our clinic. 42 of them was male, 9 was female. The mean age of the patients was 69,22 (49-83 years). the mean aneurysm diameter was 68,66 mm(50-91 mm), the mean hospitalisation time was 10,74 days (1-25 days). The most common co-morbiditys were arterial hypertension in 44,e chronic obstructive pulmonary disease in 21 patients.22 patients were active smokers. As peroperative complications 2 patients received cross femoral bypass,1 patient embollectomy, 1 patient had a embollectomy postoperative. We observed 11 peroperative endoleaks, in postoperative follow op we observed endoleak in 6 patients, greft migration in 1 patient.In 2 patients we diagnosed iliac aneurysm recurrency distal to the graft. By our follow up 8 patients died, 6 in post operative follow up because of their co morbidites and 2 patients during hospitalization.
CONCLUSIONS: In elective cases abdominal aort aneurysms can be treated safely endovascular or surgical. In ruptured emergency cases endovascular stent grafting, with its good short time results and minimal invasive approach is accepted as a commonly used alternative treatment selection. Additionally endoleaks and aneurysm recurrency after endovascular approachs and the dificulty of a secondary endovascular or open surgical treatment of these complications decrease the long time success of endovascular interventions.

OP-258 CONCOMITANT OCCURENCE OF ASCENDING AORTIC ANEURYSM,SEVERE COONARY ARTERY DISEASE AND ADENOCARCINOMA OF THE LUNG

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OBJECTIVE: Dealing with patients having resectable malignant tumor of the lung whom needs open heat surgery also is a big challenge.Via this case we want to discuss the rationality of combined surgical approach if possible for the treatment of such patients.
METHODS: We are in this paper presenting 78 years old male patient suffering from Ascenden Aortic Aenurysm starting 2.5 cm above aortic valve ends just before the origin of innominate artery with a diameter on maximum level 8.9cm.This patient also having severe coronary artery disease (LAD proximal%80 and RCA%90).During preoperative routine chest X-ray a mass seen which later diagnosed using fine needle biopsy as adenocarcinoma of the right lung upper lobe.Mass following other necessary procedures like PET CT,Brain CT seems like a resectable one. Patient through median sternotomy and using cardiopulmonary by passoperated.Right Lung Upper Lobe Lobectomy,CABGx2(LAD-IMA RCASafen vein) and Benthall operationperformed.Postoperative ICU follow up recorded.Under the scope of current literature concominant surgical approach to such patients discussed
RESULTS: The post operative follow up of this patient in Cardiac Surgery ICU was stable in terms of cardiopulomary parameters ie no major problem like hemodynamic instability, respiratory problem, air leak or excessive post operative hemoragie due to lobectomy under cardiopulmonary by pass seen.But unfortunately patient suffer from severe stroke.And we lost the patient postoperative 12 th day probably due to multisystem organ failure as a result of sepsis.
CONCLUSIONS: Patients having concominant severe lesions of the cardiovascular system and lung is very rare.Surgical management of such patients is controversial and challenging.Review of current literature suggest us that combined pulmonary and cardiac operations seems safe for selected group of patients. We also believe that using cardiopulmonary by pass does not adversly affect the postoperative early follow up of such patients.

OP-259 MANAGEMENT OF JUXTARENAL AORTIC ANEURSYMS

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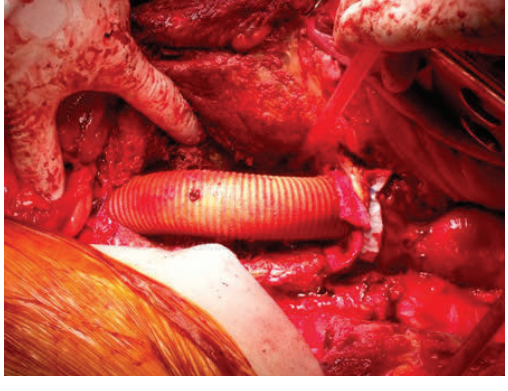
OBJECTIVE: Technologic advances in endovascular devices have composed alternative approches to abdominal aortic aneursyms(AAA). The use of endovascular grafts for repair of AAA is not appropriate for all patients depending on the anatomy of the aneursym and iliac vessels. The goal of this study was determine the feasibility of open surgical repair in morphologic unsuitability of AAA for EVAR.
METHODS:6 patients undergoing elective repair of AAA were identified. Primary outcomes were 30-day and 6 months survival. Anueurysm characteristics, comorbidities, operative results, length of hospital stays and other perioperative risk factors were assessed for their influance on outcomes, as appropriate.
RESULTS: Two of them were juxtarenal pseudoaneursym. Two were juxtarenal aneursym. And two were suprarenal aneursym. Supradiaphragmatic aortic clamping via thoracoabdominal incision with transperitoneal approach was required. Mean clamp time was 25 ± 3 minutes. Tube graft was used and blood loss was under 1000cc. There were no complications after operations. ICU and hospital length of stays was 3 to 5 and 9 to 11 days,and the patients discharged directly to home.
CONCLUSIONS: In patients with low to intermediate risk factors, open repair of AAA is as safe as EVAR and remains a more durable option. Presence of an infrarenal neck of at least 15 mm and neck angulation over 60 degree are still required for most products. Short necks are associated with complications such as migration and type I endoleak. These cases are examples for surgical treatment of AAA with unfavorable anatomy. For a successful combination, vascular surgeons should master both techniques.

Graft Interpozition to Juxtarenal Aneursym



OP-260 DO WE HAVE TO SCREEN CABG PATIENTS FOR AAA

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OBJECTIVE: Mortality from ruptured abdomianal aortic aneurysm could be prevent by putting in practice of screening programs. In this study our purpose is to evaluate effectiveness of screening AAA in atherosclerotic patients who were hospitalized for CABG to capture aneurysm.
METHODS: Fifty patients are randomized from elder than 60 years old men who were going to undergo coronary artery bypass grafting (CABG) surgery or routine check after CABG in 2010.

RESULTS: The mean age was 68.2±5.7 (60-86). Four patients (8%) had abnormal diameters, 2 (4%) of them had aneurysm and 2 (4%) of them had dilatation. The patients whom had increased abdominal aortic diameter were elder than 65 years old and had hypertension. The aortic pathology was take place below the renal arteries in these patients.
CONCLUSIONS: First 50 patients result in our continuing study; screening for AAA is feasible in patients who will undergo CABG, especially elder than 65 years old men.

OP-261 OUR EXPERIENCE IN THE ASCENDING AORTIC SURGERY

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OBJECTIVE: We assessed 38 ascending aorta surgery cases which were performed between 2007-2012.
METHODS: Totally 38 cases were included. 17 of them were type 1 acute aortic dissection, 21 were ascenden aortic aneurysm. Mean age was 55(dispersion 35-69). 20 of the patients were men and 18 were women. All patients have hypertension. Except for one all were applied both axillary and femoral arterial, and bicaval venous cannulation. Cardioplegia was administered via coronary ostium antegradly at the beginning and then retrogradly. We performed button Benthall procedure to 16 of the patients, and Cabrol procedure to 6 patients, modified Benthall-Cabrol to 2 patients, supra-coronay tube graft interposition to 13 patients and elephant trunk to 1 patient. Additionally, 4 of them were performed total arc replacement and 2 of them hemi-arc replacement. The elephant trunk case was operated with deep hypothermia-total circulatory arrest and retrograde cerebral perfusion technique because of axillary artery dissection, although arc cases were operated with deep hypothermia-total circulatory arrest and antegrade cerebral perfusion technique.
RESULTS: The mortality rate was %5 (2 of 38). 5 patients were reoperated for bleeding revision. Renal dysfunction was developed in two patients and upper-gastrointestinal bleeding was developed in 1 patient. 1 patient was experinced SVO 6 weeks after discharge.
CONCLUSIONS: Currently, the surgical interventions for ascending and arcus aorta being performed consistently with international standarts in our clinic. Additionally, we think that using axillary and femoral cannulation together effects terminal tissue perfusion positively without lengthening operation period.

March 2, 2012 / 15:30-17:00 NEW THERAPEUTIC OPTIONS FOR ATRIAL FIBRILATION, PULMONARY EMBOLISM AND STROKE – ORAL PRESENTATIONS

OP-266 ROLE OF VIDEO-ASSISTED THORACOSCOPY IN THE MANAGEMENT OF STROKE

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OBJECTIVE: We evaluated the role of surgery (anterior thoracotomy versus video-assisted thoracoscopy) in the management of stroke by obliteration of left atrial appendage in patients with chronic or intermittent nonrheumatic atrial fibrillation.
METHODS: We conducted a prospective study from January 2008 through January 2010. All patients with chronic or intermittent nonrheumatic atrial fibrillation were identified from routine clinical practice who attended the cardiothoracic department in King Fahd Hospital are included in this study. They were 58 patients [35 male, 23 female; aged 62 ± 13.2 years]. Patients were subdivided into 2 groups; Group [A] 29 patients underwent anterior thoracotomy for obliteration of left atrial appendage and Group [B] 29 patients underwent the video-assisted thoracoscopic obliteration of left atrial appendage. Preoperative, intraoperative and postoperative variables, morbidity, occurrence or recurrence of stroke and survival are compared in both groups. All patients were followed for at least 1 year.
RESULTS: Preoperative variables were well matched for age, sex and co morbidities between both groups. No occurrence or recurrence of stroke was observed in both groups. Operative time was statistically highly significant [$p < 0.001$]; it was longer in Group [B]. There was no intraoperative complication in both groups. There was no postoperative complication in both groups except two cases of superficial wound infection in group [A]. There was no any significance difference between both groups as regard duration of chest tube drainage and length of hospital stay. There was no in-hospital mortality in both groups.
CONCLUSIONS: In chronic or intermittent atrial fibrillation patients, prophylactic left atrial appendage exclusion is suggested as a method to prevent occurrence or recurrence of stroke. The left atrial appendage obliteration can be done through either surgical approach or thoracoscopic approach but video-assisted thoracoscopy approach is effective, less invasive and it avoid complications of surgical approach.

OP-267 CONTEMPORARY MANAGEMENT FOR ACUTE PULMONARY EMBOLISM

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OBJECTIVE: Indications regarding surgical pulmonary embolectomy for treatment of submassive/massive acute pulmonary embolism still controversial and debatable. An institutional experience with pulmonary embolectomy for acute

pulmonary embolism (APE) was studied to mitigate the problem.
METHODS:A retrospective analysis of all patients underwent pulmonary embolectomy for APE in our institution from September 2004 to September 2010. Demographic data, clinical presentation and post operative outcomes were analyzed.
RESULTS: Twenty six patients underwent surgery for APE over a period of 6 years [average age 59.6 (range 35–89) years, (sixteen male, ten female)]. Sixteen patients were admitted with known APE and nine patients exhibited post admission APE. Clinical presentation included dyspnea (86.67%), hemodynamic instability requiring continuous vasopressor support (40%), echocardiographic evidence of right ventricular dilatation (80%). Twenty one patients undergoing early/expedient embolectomy all survived while delayed surgery in the other five patients (>24 h) was associated with 60% mortality.
CONCLUSIONS: Expanding indications for early surgical pulmonary embolectomy has been cornered from reliable echocardiographic identification of right ventricular compromise and recognition of these findings as pathognomic of subsequent hemodynamic compromise. Our series patients emphasize the benefit of early consideration and execution of pulmonary embolectomy in these critically ill patients.

OP-268 COMPARISON EFFICACY AND SAFETY ANTI PLATELET PROPHYLAXIS OF ASPIRIN PLUS HEPARIN WITH HEPARIN ALONE ON ASYMPTOMATIC PERIOPERATIVE DEEP VEIN THROMBOSIS WAS DIAGNOSED BY LOWER LIMB COLOR DOPPLER IN PATIENTS UNDERGOING OFF-PUMP CABG SURGERY

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OBJECTIVE: This study was designed that test hypothesis of comparison prophylaxis anticoagulant protocol of Aspirin plus Heparin with Heparin alone on perioperative DVT about efficacy and safety of these protocols.
METHODS:120 patients undergoing off pump CABG were randomly to receive heparin (Hep) or heparin plus aspirin (Hep-Asp). The heparin group received routine dose of heparin after initiation of standing in hospital until time of freedom of hospital and the Hep-Asp group received routine dose of heparin and dose of Asp 80 mg daily oral, same duration preiperative to Hep group. We evaluated Post-CABG variables, including: deep vein thrombosis was diagnosed by lower limb color Doppler (LLCD) and laboratory data such as HGB-HCT-PLT and side effects such as bleeding, pulmonary embolism. Primary LLCD was done in the time of admission and secondary LLCD was done in the time of freedom of hospital. We used SPSS v.15 and Chi-square, ANOVA and Fisher exact test to analysis data.
RESULTS: The mean age of the patients was 62.10±10.71 years and males to females ratio was 2.24. Asymptomatic DVT occurred in 12 (10%) patients undergoing CABG. Significantly difference in the incidence of DVT was found between the heparin (16.7%) and heparin plus aspirin group (3.3%) [p=0.015]. New Anticoagulant protocol Heparin plus Aspirin can reduce significantly thrombosis compared with heparin alone. No statistical difference between two groups about laboratory data such as HGB, HCT and PLT [P=0.95, P=0.68, P=0.32]. Evaluation of side effects of these protocols such as bleeding and pulmonary embolism (PE) indicate that all of patients have not PE at all in this research. No statistical difference between two groups about bleeding.
CONCLUSIONS: Aspirin plus heparin reduces DVT significantly and this prophylaxis intervention better than heparin alone about anticoagulant efficacy and safety in blood data and side effects in patients underwent elective off pump CABG surgery. These results need to future studies about detecting of efficacy and safety of these protocols exactly again. We suggest utilize of aspirin plus heparin in cardiac surgical procedure instead of heparin alone.

March 2, 2012 / 13:30-15:00
CORONARY ARTERY DISEASE: FROM GENE TO BEDSIDE – ORAL PRESENTATION

OP-279 THE EFFECT OF ADMISSION CREATININE LEVELS ON ONE-YEAR MORTALITY IN ACUTE MYOCARDIAL INFARCTION

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OBJECTIVE: We have known that patients with renal insufficiency have increased mortality for coronary artery disease. Creatinine level is an important marker of renal insufficiency. In this study, the relationship between admission creatinine level and oneyear mortality is evaluated in patients with acute myocardial infarction (AMI).
METHODS:A total of 160 AMI patients (127 men and 33 women with a mean age of 59 ±13) who were admitted to our hospital between 2008 and 2009 were enrolled in the study. Serum creatinine levels were measured within 12 hours of AMI. The patients were divided into two groups according to admission serum creatinine level: (1) elevated serum creatinine group (elevated group, serum creatinine >1.3mg/dL) and (2) normal serumcreatinine group (normal group, serum creatinine <= 1 1.3 mg/dL).One year later, themortality rates were evaluated.
RESULTS: The present analysis includes a total of 160 patients (33 women and 127 men). Mean age is 59 ± 13. The number of anterior, inferior, and non-

ST-segment elevation myocardial infarction (MI) patients are 64 (40%), 60 (37.5%), and 36 (22.5%), respectively. Elevated serum creatinine is observed in the 27 patients (16.9%). The mean creatinine level is 1,78 ± 7mg/dL in the elevated group and 0,9 ± 0,18 mg/dL in the normal group (P < 0.0001). The mortality rate of the elevated group (n = 7, 25.9%) is higher than that of the normal group (n = 9, 6.8%). A significant increase in one-year mortality is also observed (P = 002).

CONCLUSIONS: In this study, we showed that the presence of STEMI and elevated creatinine on admission is associated with increased one-year mortality, independent of other conventional risk factors. This unwanted outcome is observed not only in patients with severe renal dysfunction but also in patients with mild renal dysfunction. Creatinine levels are a cheap and fast clinical marker that can estimate long term mortality in patients with acute coronary syndromes. Thus, AMI patients with elevated serum creatinine level on admission need close followup and intensive management for the prevention of recurrent cardiovascular events.

Comparison of the characteristics of two groups according

	Creatinine <= 1,3 n: 133	Creatinine > 1,3 n: 27	P value
Anterior MI, n (%)	58 (36.3%)	6 (3,8%)	
Inferior MI, n (%)	44 (27,5%)	16 (10%)	0.032
Non ST MI, n (%)	31 (19,4%)	5 (3,1%)	
Diabetes, n (%)	23 (17,3%)	8 (29.6%)	0.139
Age (years)	65 ± 12	68 ± 12	0.094
Hypertension, n (%)	30 (22,6%)	8 (29.6%)	0.431
Smoking, n (%)	57 (42.9%)	6 (22.2%)	0.058
eGFR (mL/min)	96 ± 26	44 ± 15	<0.0001
Male, n (%))	109 (82%	18 (66,7%)	0.073
Serum creatinine level (mg/dL)	0.9 ± 18	1.78 ± 7	<0.0001
CK/MB (ng/mL)	74 ± 69	98 ± 111	0.119
Troponin (ng/mL)	4.1 ± 11	28 ± 1.6	0.551
LVEF (%)	46 ±9	47 ± 10	0.740
Serum urea level (mg/dL)	34 ± 11	59 ± 20	<0.0001
One-year mortality	9 (6.8%)	7 (25.9%)	0.002

MI:myocardial infarction; eGFR: estimated glomerular filtration rate; LVEF: left ventricular ejection fraction.

OP-280 EVALUATION OF CORONARY MICROVASCULER FUNCTION AND NITRIC OXIDE SYNTHASE INTRON 4 A/B POLYMORPHISM IN PATIENTS WITH CORONARY SLOW FLOW

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OBJECTIVE: Coronary slow flow are reported to be associated with increased cardiovascular disease risk. We have used coronary flow reserve (CFR) measurement by trans-thoracic Doppler echocardiography (TTDE) to determine coronary microvascular function in patients with coronary slow flow and to determine whether intron 4a/b polymorphism of eNOS gene influences coronary endothelial function.

METHODS:96 Patients with coronary slow flow and 79 controls were enrolled in study. Biochemical data, physical parameters, and CFR measured by TTDE were recorded. eNOS 4a/b polymorphism was detected by polymerase chain reaction. Patients with diabetes were excluded from the study

RESULTS: Slow coronary flow (SCF) group was comparable to control group by means of demographic and clinical properties except for haemoglobin and HDL cholesterol levels (Table 1). TIMI frame count of LAD, LCx and RCA; mean TIMI frame count was higher in SCF group. Hyperaemic DPFV and hyperaemic/baseline DPFV ratio was significantly lower in SCF group when compared to control group. However, baseline DPFV were similar in both groups. Frequency of subjects with eNOS4 a/a and eNOS4 a/b phenotypes were statistically higher in SCF groups (Table 1). Frequency of allele "a" of eNOS4 gene was also statistically higher in SCF group. When subjects are grouped according to the presence or absence of allele "a" of eNOS4 gene, statistically significant differences were shown in TIMI frame count of LAD, LCx; mean TIMI frame count; baseline DPFV; hyperemic/baseline DPFV. Univariate analysis in which eNOS4 b/b was used as the referrent group, showed that presence of allele "a" of eNOS4 gene significantly predicted CSF (OR:2.79, CI 95%: 1.32-5.89, p=0.007). In multivariate analysis using model adjusted for variables with a p value lower than 0.10 in univariate analyses, presence of allele "a" of eNOS4 gene was found to be an independent predictor of CSF (OR of 3.22, CI 95% 1.28-8.82, p=0.013).

CONCLUSIONS: Our findings indicate possible association of allele "a" of eNOS4 a/b gene polymorphism in pathophysiology of CSF. Presence of allele "a" is found to be correlated with higher TIMI frame counts in coronary angiography and blunted hyperemic response of diastolic coronary flow on echocardiography. However, a casual relationship of this polymorphism with nitric oxide metabolism and endothelial dysfunction could not be established. In

addition, hyperemic DPFV and hyperemic/baseline DPFV ratio can be used for evaluation of coronary flow by transthoracic echocardiography.

Table 1

	Patients with SCF n=96	controls n=79	p
Age (year)	55.5±9.4	55.7±9.2	0.86
Male/female	43/36	49/47	0.76
Body-mass index (kg/m2)	24.6±2.5	24.7±2.2	0.67
Hypertension n,(%)	12 (%)	9 (%)	0.54
Total cholesterol (mg/dL)	181.2±41.7	191.4±39.1	0.11
HDL-cholesterol (mg/dL)	40.1±9.1	43.3±9.6	0.03
LDL-cholesterol (mg/dL)	114.5±36.7	119.1±35.9	0.41
Triglyseride (mg/dL)	134.1±72.1	135.9±61.6	0.84
TIMI frame count			
LAD	55.1±8.4	20.6±2.7	<0.001
LCx	44.5±6.4	21.1±2.3	<0.001
RCA	39.6±6.7	20.7±2.1	<0.001
Mean TIMI frame count	46.4±4.6	20.8±1.5	<0.001
Echocardiographic data			
Baseline DPFV (cm/s)	26.81±3.55	26.82±4.10	0.92
Hyperemic DPFV (cm/s)	49.31±7.11	67.32±8.29	<0.001
Hyperemic/Baseline DPFV	1.86±0.36	2.56±0.46	<0.001
eNOS 4a/b gene polymorphism			
a/a n,(%)	4 (4%)	---	
a/b n,(%)	28 (30%)	12 (15%)	
b/b n,(%)	64 (66%)	67 (85%)	
Total n,(%)	96 (100%)	79 (100%)	
		x2: 8.91	0.012
Allele frequency*			
a n(%)	36 (18%)	12 (7%)	
b n(%)	156 (82%)	146 (93%)	
Total	192 (100%)	158 (100%)	
		x2: 7.58	0.006

Demographic, clinical, echocardiographic variables and genotype and allele frequencies of polymorphism in endothelial nitric oxide synthase (eNOS) 4a/b gene in cases and controls

March 2, 2012 / 15:30-17:00
A NEW LOOK INTO VALVULAR DISEASES – ORAL PRESENTATION

OP-282 MITRAL VALVE ANNULOPLASTY FOR ISCHEMIC MITRAL REGURGITATION: A 4-YEAR CLINICAL EXPERIENCE WITH THE FLEXIBLE DURAN ANCORE BAND

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OBJECTIVE: This study investigated the results of mitral annuloplasty with the flexible Duran AnCore band in patients with ischemic mitral regurgitation (IMR).
METHODS: From 2008 to 2011, 35 consecutive patients with IMR operated for prosthetic band(Duran AnCore) annuloplasty and concomitant coronary artery bypass grafting. Mean follow-up was 29 months. Clinical and echocardiographic assesment was accomplished preoperatively, postoperatively, at 6 and 12 months, and at two years.
RESULTS: Perioperative early mortality was 3 and 1 late mortality. Postoperative NYHA class improved 2.8 +/- 0.5 to 0.9 +/- 0.3. Post-operative recurrence of significant IMR (>grade 2) was absent in all patients.
Survival rates at the postoperative reexamination times were 97%, 96%, and 96%, respectively (1 noncardiac deaths). All LV dimension and volume indices and the LVEF improved significantly after surgery
CONCLUSIONS: Mitral valve band annuloplasty using the flexibl Duran AnCore band corrected in IMR patients with very low mortality and improved contractility.

OP-284 SUPERIOR SEPTAL APPROACH

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OBJECTIVE: We retrospectively studied 122 cases operated in our clinic between 2006-2012. In this study, we aimed to discuss our experiences about the advantages and disadvantages of superior septal approach.
METHODS: The classification of the studied cases were as follows; 35 MVR + tricuspide valve repair, 30 MVR, 21 mitral annuloplasty/valvuloplasty, 14 AVR +

MVR, 10 MVR + CABG, 6 redo MVR, 3 MVR + ASD and 3 left atrial mixoma excision. There were 62 women and 60 men. Mean age was 44 (25-77). 91 of the patients were valve stenosis and 31 were valve regurgitation. 6 of the mitral stenotic cases have a history of closed mitral balloon valvuloplasty, and 5 have closed mitral commissurotomy. Two of the patient was operated emergently because of one of them acute mitral regurgitation and lung edema caused by during closed mitral valve valvuloplasty and the other one mitral orifice obstruction by left atrial mixoma because of lung edema.We repaired 21 of isolated valve regurgitation cases and 10 of them required valve replacement because of inappropriate valve structure. We used Quadranguler resection+ring annuloplasty for 10 of the valve repaired patients and double orifice (Alfieri) technique for 11 of them. Incidentally we diagnosed secundum ASD in three MVR patients and they were repaired.
RESULTS: Mean cross clemp duration was 52(±12.3) minutes, total bypass duration was 66(±8.8) minutes. IABC is used for 3 patients. Mean hospitalization time was 6.3(±3.4) days. One of the AVR+MVR patient was died 3 days after operation. Four patients needed revision because of early post-operative bleeding. None of the patient experienced permanent AV block.
CONCLUSIONS: Superior septal approach includes risks as AV block, prolongation of operation time and bleeding complication. Neverthless, none of the patient experienced permanent AV block. Although, when compared with standart left atrial sternotomy it lengthens operation time about 10 minutes; according to our opinion all of these risks may be acceptable because of perfect view, commanding to interatrial septum and appropriate for tricuspid valve intervention with only one incision.

OP-285 VALVE REPAIR IN MITRAL REGURGITATION: A BRIEF REVIEW OF A 4-YEAR CLINICAL EXPERIENCE

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OBJECTIVE: This study evaluated the clinical outcome of patients undergoing mitral valve repair
METHODS: From June 2008 to December 2011, 25 consecutive patients (mean age 56,08, 13male, 12 female) with mitral regurgitation underwent surgery for mitral valve repair and concomitant clinical pathology. All patients were evaluated preoperative and postoperative transthoracic and intraoperative transeosophageal echocardiography. Mitral annular band or ring were used in all operation. The mechanism responsible for mitral regurgitation was: 9 bileaflet prolapse, 9 posterior leaflet prolapse, 3 anterior leaflet prolapse, 3 annular dilatation and 1 mitral cleft. Mean follow-up was 24 months. Clinical and echocardiographic assesment was accomplished preoperatively, postoperatively, at 6 and 12 months, and at two years.
RESULTS:13 patients had quadrangular resection, 4 had artificial cordae, 2 had papillary muscle reimplantation, 2 had triangular resection and 4 mitral annular ring annuloplasty with edge to edge repair operation. We have not operative mortality. Post-operative recurrence of significant mitral regurgitation (>grade 2) was absent in all patients. Freedom from reoperation after 6 and 12 months was 100% for all the patients
CONCLUSIONS: Mitral valve repair is a successful method for mitral regurgitation.

OP-286 SUPERIOR - SEPTAL APPROACH FOR MITRAL VALV REPLACEMENT IN PATIENTS WHO HAVE ATRIAL FIBRILATION PREVIOUSLY

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OBJECTIVE: Atrial Fibrilation (AF) is commonly occured in patients who have mitral valv disease. Superior - Septal approach is usually used for perfect exposure. During valve replacement surgery different methods have been using to provide normal sinus rhytm. We aim to study the effect superior - septal approch for providing normal sinus rhytm during mitral valve replacement surgery.
METHODS: In our clinic betwen June 2010 - October 2011, 90 patients have Mitral Valve Replacement (MVR) surgery. Their mean age was 57,2. 43 patient was female. 45(%50) patient has only MVR, 12 (%13) patient have MVR and Aortic Valve Replacement (AVR) together, 33 (% 37)patient has also have Coronary Bypass Surgery with MVR. All the patient with AF surgery performed via superior septal approach, and for normal sinus rhytm via left atriotomy incision. No ablation or other method have been used for rhytm.Patients preoperative and postoperative rhytm has documented. Patients have controled 2nd day, 1st week and 1 month postoperatively by electrocardiography (ECG).
RESULTS: Preoperative atrial fibrilastion / normal sinus rhytm ratio was; Only MVR: 29/16; MVR+ AVR: 5/6 and MVR+ CABG: 20/13. After Surgery 36 (%67) patients postoperative rhytm was return to normal sinus rhytm. Patients mean discharged day was postoperative 5,6 day. On follow up period 3 patient return to atrial fibrilation rhytm.
CONCLUSIONS: We recomended to choose superior septal approach for mitral valv surgery in patients who have preoperative atrial fibrilation. This method is and useable and a cheap method to return atrial fibrilation to normal sinus rhytm.

OP-287 SURGERY FOR RHEUMATIC VALVE DISEASE IN PREGNANCY: WHAT ABOUT NEONATE?

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OBJECTIVE: Cardiac disease occurs in approximately

2% of pregnancies and it is the primary non-obstetric cause of mortality in pregnancy. Management of pregnancy with rheumatic valvular disease such as mitral stenosis continues to pose a challenge to clinician. In this study, we evaluate the effect of maternal rheumatic valvular disease requiring definitive operation concurrent with caesarian delivery on maternal and fetal outcome.

METHODS: Between 2003 and 2010, total of nine pregnant women, eight with rheumatic mitral stenosis and one with pulmonary stenosis, and nine live births of them were retrospectively examined. These patients were then followed up with medications, bed rest and hospitalization when needed until term. Surgery was indicated in perinatal period due to clinical deterioration. Unresponsiveness to medical therapy during hospitalization and worsening of symptoms or development of hemodynamic instability were the indications for intervention.

Immediately after caesarean section neonates were examined by neonatalogist and transferred to neonatal intesive care unit.

RESULTS: All of the deliveries were performed by caesarian delivery because of critical functional status of heart. Three of mothers had spontaneous abortions. There was no maternal mortality. Postoperative period of mothers were uneventful. There were no late maternal death. Birth weight for the the newborns was ranged between 1370 and 2900 grams. Six of the newborns were premature (<= 37 weeks). Four newborns were small for gestational age (SGA). There was no mortality. Echocardiography was performed to all newborns. Newborn 1 had ventricular septal defect, pulmonary stenosis and patent foramen ovale, and newborn 3 had patent ductus arteriosus and patent foramen ovale. Premature newborns had morbidities such as respiratory distress syndrome, intraventricular haemorrhage, sepsis, bronchopulmonary dysplasia. Hospital stay for newborns was ranged between 4 and 54 days.

CONCLUSIONS: Mitral stenosis is responsible for prematurity, intrauterin growth restriction and associated morbidities, and the consequences of MS worsen during pregnancy. Careful follow-up of these pregnancies and determining the right time of cardiac intervention are the essential issues. Management of pregnancy with MS continues to pose a challenge to clinician. This study showed a significant impact of mitral stenosis on fetal outcome. We suggest that careful follow-up of both mother and fetus during pregnancy and also after birth.

OP-288 THE IMPACT OF MITRAL STENOSIS ON LEFT ATRIAL FUNCTION ASSESSED BY TWO-DIMENSIONAL SPECKLE TRACKING ECHOCARDIOGRAPHY

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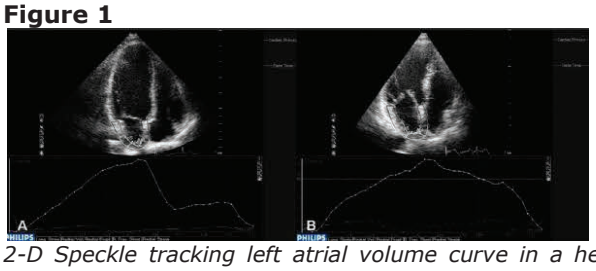
OBJECTIVE: The aim of the present study is to investigate the effect of mitral stenosis on left atrial function using two-dimensional speckle tracking echocardiography (2DSTE).

METHODS: The study subjects consisted of 52 patients who were followed for rheumatic mitral stenosis on an outpatient basis in Gulhane Military Medical Academy Hospital between 2010-2011 and 52 control subjects. Exclusion criteria were hypertension, diabetes mellitus, other valvular and ischemic heart disease. All patients underwent standard transthoracic echocardiographic examination as a part of their routine evaluation. Left atrial function was assessed by using prototype speckle tracking software (QLAB version 6.0, TMQ, Philips Medical Systems) (Figure 1) and manual tracing method. LA reservoir function was assessed by 3 indices. Filling volume was calculated by LAVmax-LAVmin. Expansion index was analyzed by ([LAVmax-LAVmin]/LAVmin)x100. Diastolic emptying index was determined by ([LAVmax-LAVmin]/LAVmax) x100. LA conduit function was assessed by calculating the passive emptying percent of total emptying as ([LAVmax-LAVpre-a]/[LAVmax-LAVmin])x100 and the passive emptying index as ([LAVmax-LAVpre-a]/LAVmax)x100. Booster pump function was assessed as follows. Active emptying percent of total emptying was calculated as ([LAVpre-a-LAVmin]/[LAVmax-LAVmin])x100. Active emptying index was assessed by ([LAVpre-a-LAVmin]/LAVpre-a)x100.

RESULTS:LAVImax (r = 0.93, P <.001), LAVI min (r = 0.93, P <.001) and LAVIpre-a (r = 0.94, P <.001) measurements via speckle tracking were highly correlated with manual tracing methods. Expansion index (67,82±36,03 vs 148,36±51,72), diastolic emptying volume index (37,77±12,97 vs 58,02±8,55), LA conduit function (37,39±14,17 vs 70,44±10,40) and passive emptying volume index (13,54±6,31 vs 41,35±10,67) were decreased significantly in MS patients (P <.001). In contrast booster pump function (62,60±14,17 vs 29,55±10,40) increased in MS group (P <.001) while active emptying function (28,10±13,07 vs 28,31±6,98) remained same among both groups.

CONCLUSIONS: This is the first study relating LA volumes and function assessed by 2DSTE to MS. 2D speckle-tracking analysis of LA volume is relatively easy and provides more detailed information regarding the changes in LA volumes during the cardiac cycle. Additionally 2DSTE method can help overcome the problem of observer variability in assessment of LA function

Figure 1



2-D Speckle tracking left atrial volume curve in a healthy subject (A) and in a patient with mitral stenosis (B).

March 2, 2012 / 17:00-18:30 CONGENITAL AND AORTIC DISEASES OF AORTA - ORAL PRESENTATIONS

OP-298 EMERGENCY ABDOMINAL AORT ANEURYSM SURGERY

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OBJECTIVE: Early diagnosis and treatment of ruptured abdominal aortic aneurysms, especially in terms of surveillance is very important. In our study, we evaluated 20 patients, with a diagnosis of a ruptured aortic aneurysm and treated surgically under emergency conditions.
METHODS: We included 20 patients, admitted to emergency unit between February 1999 - February 2011. In the study abdominal pain as the most common complaint (63.2%) and low back pain (31.6%), and 1 patient (5%) presented with acute abdomen clinic. Median laparotomy incision used in all of the patients who were operated (100%). Aneurysmectomy with Aorto-bifemoral bypass was performed in 8 patients (40%), 10 patients with aneurysmectomy and aorto-biiliac bypass (50%), 2 patients aneurysmectomy + tubular graft interposition to abdominal aorta (10%).
RESULTS: The patients operated for abdominal aortic aneurysm, 19 male (95%), and 1 patient is female (% 5), respectively.The average age of the patients in the group was 64.9 (± 9.4) for males 64.2 (± 9.3), female patient's age was 77. The risk factors that were associated with the current clinic patientgroup are hypertension (100%), hyperlipidemia (%85), diabetes (%30), COPD (%40), smoking (95%), high serum creatinine level -1.5 mg / dl (25%). All patients were operated under emergency conditions. During the operations, we used polytetrafluoroethlene graft (84.2%) (all of them are bifurcated) and the Dacron graft (10.5%) (all of them tube graft), respectively. Average blood transfusion amount is 8 ± 3,25 units of erythrocyte per case. All patients were observed at post-operative period in intensive care unit. Postoperatively, all patients had lower extremity distal pulses palpabl (100%). Average intensive care unit stay was 3.75 days (± 2.04), respectively. Mortality occurred in 4 patients (20%). Patients died due to cardiac reasons and poatoperative renal failure.
CONCLUSIONS: Ruptured abdominal aortic aneurysms, a clinical condition with high mortality, and high survival rate can be obtained if patient is undergoing operation without delay. Clinical suspicion of the rupture and the physician's first diagnosis is very important and early surgical treatment is applicable if the patient is transported to a cardiovascular surgery center without delay.

March 3, 2012 / 15:30-17:00 INTERVENTIONS IN PERIPHERAL ARTERIAL DISEASES - ORAL PRESENTATIONS

OP-299 CAROTID ANGIOPLASTY AND STENTING IN OCTOGENARIANS IS AS SAFE AS SURGERY

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OBJECTIVE: Recent studies, registries (EXACT, CAPTURE…) randomized studies (CREST) have shown that carotid angioplasty stenting (CAS) is at higher risk than surgery (CEA) in elderly patients. The aim of this study was to evaluate if CAS performed in octogenarians is as safe as surgery with better indications, choice of the devices, experienced operators..
METHODS:1004 patients (male 733) mean age 70.9 ± 9.4 years underwent 1064 CAS for de novo lesions (n=982) restenoses (n=56) post radiation (n=14) inflammatory arteritis (n=10) post trauma aneurysms (n=2). Indications for treatment: symptomatic carotid stenosis > 70 % (63%) or asymptomatic stenosis > 80 %. Patients were separated into 2 age groups: > 80 y (144 patients, 147 CAS) and <80 y (860 patients, 917 CAS). 188 CAS performed without protection (N.P-) 6 in patients >80 y, 876 with protection (NP+) (occlusion balloon: 334, filters: 537, reversal flow: 6) 141 in patients >80y. Data analysis included neurological complications, death and myocardial infarction (MI) rate at 30 days, anatomical particularities. Technical points will be described depending on the age of the patient.
RESULTS:
-Technical success
< 80 years: 915/917
>80 years: 146/147
-30 day outcomes
1064 PROCEDURES
> 80 Y.
< 80 Y.
TOTAL
WITHOUT EPD
WITH EPD
TOTAL
WITHOUT EPD
WITH EPD
NBR 147 6 141 917 182 735
T.I.A. 2 (1,3%) 1 (17%) 1 (0,7%) 10 (1,1%) 3 (1,6%) 7 (1%)

MINOR STROKE
1 (0,7%)
1 (17%)
0
6 (0,7%)
3 (1,6%)
3 (0,4%)
MAJOR STROKE
0
0
0
3 (0,3%)
2 (1,1%)
1 (0,1%)
RETINAL EMBOLUS 0 0 0 4 (0,4%) 0 4 (0,5%)
HYPERPERFUSION SYNDROME 0 0 0 3 (0,3%)
0 3 (0,4%)
DEATH
FATAL STROKE
NON FATAL STROKE
0
0
0 5 (0,5%)
4 (0,4%)
1 (0,1%) 2 (1,1%)
2 (1,1%)
0 3 (0,4%)
2 (0,3%)
1 (0,1%)
MI 0 0 0 1 (0.1%) 0 1 (0.1%)
DEATH / STROKE 1 (0,7%)
1 (17%) 0 14 (1,5%) 7 (3,8%) 7 (1%)
DEATH / STROKE / M.I. 1 (0,7%) 1 (17%) 0
15 (1,6%) 7 (3,8%) 8 (1,1%)
EPD: EMBOLIC PROTECTION DEVICES

CONCLUSIONS:CAS can be performed in elderly patients without higher risk than in younger patients. But good indications, a meticulous technique, protection devices are mandatory and some technical points must be pointed out to avoid neurological complications and failures.

OP-300 CAROTID ENDARTERECTOMY OR STENTING BEFORE CARDIAC SURGERY

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OBJECTIVE: Cerebrovascular events are among the most common noncardiac complications that are associated with cardiac surgery. Many approaches, carotid endarterectomy (CEA) versus carotid artery angioplasty (CAS), synchronous versus staged procedures, have been recommended. We reviewed our patients with synchronous CEA and open heart surgery versus patients with CAS prior to heart surgery. This study aims to find out if CAS should be considered as an alternative, prior to heart surgery.
METHODS: From 2000 to 2011, 58 patients underwent synchronous CEA and open heart surgery. 44 patients (76 %) had CABG and 14 patients (24%) had valvular or combined procedure. From 2010 to 2011 18 patients underwent CAS before heart surgery. 10 patients had CABG (55 %) and 8 patients (45 %) had valvular or combined procedure.
The indication for CEA or CAS was symptomatic carotid stenosis, severe bilateral lesions, asymptomatic patient with significant (>80%) unilateral lesion, regarding the age, urgency, severity of CAD, left ventricular function and comorbid medical disease. CAS was performed if heart surgery was not urgent.
RESULTS: In CEA group we have 2 deaths, 1 stroke and 1 myocardial infarction. 1 patient died because of multiorgan failure. 1 patient died because of postoperative stroke due to acute thrombosis and occlusion of vertebral artery. We have no strokes related to CEA. In CAS group we have 1 minor stroke with no neurological deficit and no deaths or myocardial infarctions.
CONCLUSIONS: Revascularization strategy for patients with advanced carotid disease undergoing open heart surgery should be suggested on a case - by-case basis by a multidisciplinary team that includes neurologists, surgeons and interventionists. They can take into account the comorbidities of the patient and the degree of urgency of cardiac surgery. CAS should be considered as a good alternative in selected cases.

OP-301 RETROGRADE CAPILLARY PERFUSION

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OBJECTIVE: Peripheral vascular disease is wide spread and causes a lot of concern because of its negative socio- economical effects. there are no signs of general health improvement because of the wide spread of cigarette smoking and the ingestion of the wrong diet. End stage lower limb ischemia does not improve with conservative or operative methods and amputation is the end result. we are looking for new ways to save the LL from amputation and improve patients symptoms.
METHODS: We used the reversed autologous long saphenous vein to direct the blood from the superficial femoral artery or the common femoral artery to the capillary system in the foot after ligating all the venous tributaries in the leg in order to achieve retrograde capillary perfusion to the rest of the leg in 8 patients with end stage ischemia and gangrene of the toes,who were candidates for amputations. All patients were heavy smokers and 4 of them were diabetic with peripheral microangiopathy who had failed vascular procedures in the past
RESULTS: The operation failed in the 4 diabetic patients but the early results in the none diabetic group were encouraging with complete relief of symptoms in all 4 patients. The ischemic legs of the diabetic patients had to be amputated a few days after surgery. The legs of the none diabetic patients were saved and the patients were discharged home after 10 to 14 days free of or with improved symptoms and reasonable to good capillary perfusion
CONCLUSIONS: Retrograde capillary perfusion might offer a solution to patients with end stage lower limb ischemia to prevent or delay amputations. This

method did not help diabetic patients probably because of advanced peripheral microangiopthy. It is however early to draw conclusion before large numbers of patients are operated. We need to observe the postoperative period for months and years. Our colleagues are invited to start this procedure and make their observations.

OP-302 PERCUTANEOUS TRANSLUMINAL ANGIOPLASTY AND STENTINGOF EXTRACRANIAL VERTEBRAL ARTERY STENOSE

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OBJECTIVE: To evaluate the safety and efficiency of vertebral angioplasty and stenting (VAS) in symptomatic patients
METHODS:102 angioplasties in 96 pts (M:72) mean age 68,3 ± 6,7 years (22-84) left 58. All pts had multivascular diseases: carotid (CA):63, subclavian (SA): 26, coronary:64.... Atheromatous lesions: 100, inflammatory: 2. Mean lesion length: 9,6 +/- 2,8 mm. Mean % stenosis 83.2 ± 7.7, mean arterial diameter: 4,8 ± 0,6 mm (4-6). 94 lesions at VO segment (ostium), 6 at V1 and 2 at V2 segments. Indications for angioplasty: dizziness (96), bilateral weakness (11), visual changes (11), diplopia (10), drop attacks (20), TIA (13), ataxia (5). A protection device (filter) used in 10 pts. 20 SA angioplasties performed at the same time of VAS, 8 CA. All angioplasties performed by femoral approach, 4 by brachial approaches after failure of femoral approach. (2 successes).
RESULTS: Technical success 100/102 (98%). 6 lesions treated by angioplasty alone: 3 VO (first 3 pts. 2 V1, 1 V2 lesion). 1 pt (inflammatory disease) treated by cutting balloon alone. 93 lesions treated with stents (direct stenting: 78). Peripheral balloon expandable stents (n=23), self expandable stents (n=4 for 3 V1 and one V2 lesions). 70 coronary stents (14 DES). 1 pt developed a TIA during the procedure. No neurological complications at 30 days Clinical success 94/96 (98%)
Post-procedure arterial diameter: 4,55 ± 0,8 mm (4-6). Mean residual stenosis 2,2 ± 3,5 %.
In 10 pts treated with protection devices, visible debris removed in 7 (5 Filterwire, 2 Fibernet) with the same amount of debris as during Carotid Stenting) 7 pts (8%) developed a symptomatic restenosis during the follow-up (mean: 31.4.±28.9 months), 3 after PTA alone, 4 after PTA and stent (1 occlusion treated medically, 6 stenoses successfully treated with PTA). No restenosis after DES implantation at 1 year.
CONCLUSIONS:VAS can be performed safely and effectively with a high technical success rate, a low complication rate, a low restenosis rate and a durable clinical success in patients with symptomatic VA stenosis. Stents seem to improve immediate and long-term results. The role of protection devices and D.E.S has to be discussed.

OP-303 RENAL ANGIOPLASTY AND STENTING: IS IT STILL INDICATED AFTER ASTRAL AND STAR STUDIES?

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OBJECTIVE:A renal artery stenosis (RAS) is common among patients with atherosclerosis, generally progressing overtime and often associated with loss of renal mass and worsening renal function (RF). Percutaneous Renal Artery Stenting (PRAS) is the preferred method of revascularization for hemodynamically significant RAS according to ACC and AHA guidelines.
METHODS: Several trials have shown the superiority of Percutaneous Renal Angioplasty to medical therapy alone and the superiority of PRAS to PTA alone. However, two recent studies ASTRAL and STAR studies did not find any difference between renal stenting and medical therapy. But these studies have a lot of limitations and flows as we will discuss: poor indications, poor results, numerous complications, failures, poor technique, inexperienced operators…
RESULTS: Despite these questionable studies and based on other published data, renal stenting keeps indications in patients with:
-uncontrolled hypertension
-ischemic nephropathy
-cardiac disturbance syndrome (e.g "flash" pulmonary edema, uncontrolled heart failure or uncontrolled angina pectoris.
-solitary kidney
To improve the clinical response rates, a better selection of the patients and lesions is mandatory with:
-good non invasive or invasive imaging
-physiologic lesion assessment using transluminal pressure gradients
-measurements of biomarkers (e.g BNP)
-fractional flow reserve study …
A problem remains after PRAS, the deterioration of the R.F in 20-30% of the patients, maybe due to atheroembolism. The use of protection devices could improve the results.
CONCLUSIONS:PRAS is still indicated but we need:
-a better patient and lesion selection
-improvements in techniques and maybe the use of protection devices to reduce the risk of RF deterioration after PRAS.

OP-304 A NEW CONCEPT OF STENT: THE MULTILAYER STENT. FIRST HUMAN STUDY IN PERIPHERAL ANEURYSMS

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OBJECTIVE: Arterial aneurysms are traditionally treated surgically, but more and more by interventional procedures using covered stents Endografts or coils with a high technical success rate,

but some problems are not solved like protection of aneurysm rupture, endoleaks, stent thrombosis. We developed a new concept of stent, the Multilayer stent (M.S) to treat aneurysms and try to avoid some drawbacks encountered with endografts.

METHODS: This M.S is a 3 Dimensional braided tube made of several interconnected layers without any covering. Our earliest tests, through studies as theorical simulation, computerized Fluid dynamics, Molecular Modelization and through in vitro and in vivo tests demonstrate that this MS reduces the velocity in the aneurismal sac up to 90% by modifying the hemodynamic conditions. A saccular aneurysm without collateral branch will thrombose quickly. If a collateral branch is present the flow is directed towards this branch leading to shrinkage of the aneurysm. Animal experiments show excellent results.

Moreover, as demonstrated in animal and human studies this M.S preserves the collateral branches allowing the possibility to cover any artery without compromising the flow (renal, digestive arteries, supra aortic vessels …)

RESULTS:34 peripheral aneurysms (iliac:20, femoral:1, popliteal:4, renal:7, mesenteric:1, Subclavian: 1) were treated with the M.S, (male:25, mean age 61+/-8 y) (44 stents ∅ 5 to 14 mm; length 40 to 100 mm) were implanted to treat these aneurysms, by femoral approach (33 cases), brachial approach (1 case), Technical success in all patients. No complications. All aneurysms thrombosed with diameter reduction in some patients.

6 month to 30 month follow up will be presented and we will discuss the time needed to achieve exclusion of the aneurysm. All the side branches remained patent.

CONCLUSIONS:A new concept of stent, the multilayer stent (without any covering) is developed to treat aneurysm. It opens a new approach to treat peripheral aneurysms avoiding most of the complications encountered with current endovascular techniques. The results obtained seem promising. A larger study is ongoing.

OP-306 PREVALENCE AND RISK FACTORS OF PERIPHERAL ARTERIAL DISEASE AMONG THE GENERAL POPULATION AND AT-RISK PATIENTS REFERRED FOR ANKLE - BRACHIAL INDEX IN PERPETUAL SUCCOUR HOSPITAL - CEBU HEART INSTITUTE CARDIOVASCULAR LABORATORY

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OBJECTIVE: This study aimed to determine the prevalence of PAD by ankle brachial index among the general population and at-risk population that were referred for arterial studies and to determine the risk factors and comorbid cardiovascular conditions associated with an ABI of <=0.9.

METHODS: All adult patients referred, whether in-patient or outpatient, to the Perpetual Succour Hospital – Cebu Heart Institute Cardiovascular Laboratory for ankle – brachial index determination were included in the study. They were made to answer a questionnaire incorporating the demographic profile needed to characterize the patients and to establish the incidence of peripheral artery disease by ABI for at-risk population. Mean and standard deviations were utilized to indicate the continuous data such as age and ABI values. Chi-square, Fisher Exact test, and odds ratio were used to estimate the differences in proportion and association of categorical data while independent t-test was employed to estimate the differences in means among continuous data.

RESULTS:A total of 242 patients were included in the study. The incidence rate for PAD of patients referred to the Perpetual Succour Hospital – Cebu Heart Institute for ABI was 16%. Among the patients with PAD, majority were aged 50 – 69 years old (61%) with an average age of 62.27 (SD 10.82) years old. Males constituted 61%. There was no association between age and sex with PAD (p = 0.227, p = 0.303, respectively). In this distribution, diabetic cases (p = 0.002, OR = 0.242), leg symptoms (p = 0.048, OR = 0.308), and abnormal pulses (p = 0.000, OR = 0.158) were associated with PAD. Among at-risk patients with PAD, higher risk was observed in patients 50 - 69 years old with diabetes or smoking history (p = 0. 026, OR = 2.22), followed by those aged 70 years old and above (p = 0.000, OR = 5.22). Leg symptoms (p = 0.000, OR = 2.370) and abnormal lower extremity examination were also found to be positively associated with PAD (p = 0.000, OR = 9.133).

CONCLUSIONS: This study documented a high prevalence of peripheral arterial disease in the Filipino population and noted that there was no age nor sex predilection, and that PAD patients have significant comorbid conditions complicating management and therapeutic options.

March 3, 2012 / 17:00-18:30 CHALLENGES IN SURGICAL TREATMENT OF CORONARY ARTERY DISEASE – ORAL PRESENTATIONS

OP-308 USING INTRAOPERATIVE TRANSIT TIME FLOW MEASUREMENT AND POSTOPERATIVE COMPUTERIZED TOMOGRAPHY ANGIOGRAPHY TO PREDICT PATENCY OF ENDOSCOPIC HARVESTED RADIAL ARTERY AS SEQUENTIAL GRAFTS IN CORONARY ARTERY BYPASS SURGERY

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OBJECTIVE: Endoscopic radial artery (RA) graft harvesting in coronary artery bypass surgery (CABG) has been popularized but remained concerns of early graft failure. We evaluate the RA graft patency, addressed specifically as sequential grafts, by intraoperative transit time flow measurement and mid-term computerized tomography angiogram (CTA).

METHODS: Patients with RA graft, harvested by endoscopic technique and used as sequential grafts exclusively, were retrospectively reviewed. The graft was harvested in pedicle and connected to internal

thoracic artery (ITA) as a Y-graft fashion. Target vessels for sequential RA grafts were diagonal, circumflex or right coronary artery (RCA) distal branches. Adequate graft flow was confirmed by intraoperative transit time flow measurement with a pulsatility index (PI) < 4.0. Early graft stenosis was defined as stenosis >70% of the diameter on CTA, 6-12 months postoperatively. Risk factors of RA graft occlusion were analyzed by logistic regression method.
RESULTS: From 2005 to 2010, 81 patients underwent endoscopic RA harvesting by a single surgeon and 58 patients, mean age (56±7) y/o, using RA as sequential grafts were enrolled. Mean EF was 56±18 % and <35% was found in 12. All received total arterialized grafts, including 22 (38%) bilateral ITAs use, with total 202 bypassed (mean: 3.48±0.52) and 122 RA bypassed grafts (mean: 2.10±0.35). Offpump CABG was performed in 43 (84%) of 51 isolated CABG procedure and concomitant procedures were 2 surgical ventricular restoration, 7 mitral repair and 3 maze ablation. The PI of left, right ITA and sequential RA grafts with two or three targets were 1.8±0.7, 2.0±0.8, 1.9±0.4, 1.7±0.7 (no statistical difference). There was no hospital mortality and median ICU and hospital stay was 2 and 8 days respectively. Follow-up was completed in 57 (98%) patients but 3 refused CTA due to no exertional angina episode. Stenosis of left, right ITA and RA grafts were 1/54 (1.9%), 1/21 (4.8%) and 13/115 (11.3%) respectively by CT angio. At a mean of 32.8±16.9 months follow-up, no late mortality but 1 documented myocardial infarction was reported. Multivariate analysis showed that Age, diabetes, previous percutaneous coronary intervention, offpump techqnique, RA target number, PI index did not influence RA stenosis but only the RA targets to circumflex territory had adverse impact.
CONCLUSIONS: The RA of appropriately selected patients can be harvested safely by endoscopic pedicle technique and used as sequential graft of CABG with satisfactory outcome. Intraoperative transit time measurement can assure the quality of graft and CTA are valuable tool for patency follow-up.

OP-309 LEFT MAIN CORONARY ARTERY DISEASE: A FORBIDDEN TERRITORY FOR SURGEONS?

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OBJECTIVE: Best strategy for treatment of left-main coronary artery disease is a matter of debate, particularly in patients with low SYNTAX-score, where PCI may be an option as suggested by subgroup analysis of SYNTAX-trial. EXCEL-trial was recently designed to further explore this issue.
METHODS: As surgical angioplasty of coronary ostia is an alternative approach to this problem we evaluated short-medium-term clinical and angiographic results in 15 consecutive patients (59±12_yrs; 10_females; 7_hypertensive; 9_dyslipidemic; 5_diabetics; 5_SCA; 9_urgent; BMI=28.3±3.4Kg/m2; EF=53±21%; EUROSCORE_ 4.2±2.8) undergoing left-main angioplasty (9-patients), RCA-ostial angioplasty (2-patients) or both (4-patients) in the last five-years and followed-up for 24±21months. Concomitant-procedures included: aortic-valve-replacement(n=6); mitral-valve-repair(n=2); ascending-aorta-replacement(n=2); LIMA-to-LAD(n=8).
RESULTS: Postoperative complications included one CVA and one-episode of atrial-fibrillation; length-of-stay 13±7days. All patients are alive, clinically asymptomatic, without ischemic events. There were no positive stress tests 3-6 months postop. One-year angiography performed in 10 patients showed good anatomic correction.
CONCLUSIONS:A potential major advantage of this technique includes prevention of the rapid progression of ostial occlusion, when bypass grafts are performed and which might explain the good results of PCI in the treatment of some left-main stenosis. Although some important complications in the initial series prevented the development and widespread use of this technique, the present study showed promising short-term clinical, functional and anatomical results even with combined procedures.

OP-311 INFLAMMATORY RESPONSE IN CABG USING CENTRIFUGAL MECC AND CENTRIFUGAL CECC

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OBJECTIVE: Decrease in the pro-inflammatory answer in the cardiac procedures executed with Mini Extra Corporeal Circulation (MECC) has been reported in literature. Previous studies, however, compared groups with different perfusion systems: Conventional Extracorporeal Circulation (CECC) with roller pump versus MECC with centrifugal pump. The aim of this study is to evaluate the pulmonary and systemic inflammatory response comparing MECC and CECC perfusion systems using the same centrifugal pump.
METHODS: From January 2009 to January 2010 we enrolled in our institution 10 patients that received myocardial revascularization with CECC technique and 10 patients with MECC technique. In both groups a centrifugal pump was used. Warm blood cardioplegia was used as myocardial protection. Exclusion criteria were acute coronary syndrome with urgent/emergent elective surgery, and history of previous cardiac surgery. Blood samples were taken during the cardiac surgery from the systemic circulation and from the left ventricular vent. Furthermore, 24, 72 and 120 hours postoperatively samples were taken only from the systemic circulation. The pro-inflammation cytokines were analyzed using ELISA measurement specifically for IL-1b and IL-6. A white blood count cell was also performed.

RESULTS: The mean age in the MECC group was 65,9 +/- 6,63 years old while the CECC group 70,1 +/- 7,68 years old. Number of grafts used (MECC 2,4; CECC 2,6); extracorporeal circulation time (MECC 78,1; CECC 84,8) and aortic clamping time (MECC 56,2'; CECC 58,1') were similar in both groups. Concentrations of IL-1b at 24 hours since the end of the extracorporeal circulation were lower in the patients treated with MECC; the value is not statistically significant (p= 0,09). Concentrations of IL-1b at 72 and at 120 hours were lower in the group of patients treated with the miniaturized circuit with statistical significance at 72 hours, not later (p=0,02 and p=0,211 respectively). According to the blood samples recorded at 24, 72, and 120 hours, concentrations of IL-6 were lower in the MECC group. However, the results were not statistically significant (p> 0,05). The values of IL-1b and IL-6 were higher in the samples withdrew from the aortic vent than in the aortic line samples, in both times and circuits. These differences were statistically significant (p=0,05, p=0.06).
CONCLUSIONS: Regarding inflammation, it is not evident any beneficial effect of MECC compared to standard CECC if they use the same propulsive system. Considering the values of the inflammatory markers we can evidenciate a higher and earlier involvement of the pulmonary district.

OP-312 THE IMPACT OF MULTIPLE PREOPERATIVE RISK FACTORS ON THE MORTALITY, ICU AND HOSPITAL STAY AMONG PATIENTS UNDERGOING COMBINED CORONARY BYPASS AND MITRAL VALVE SURGERY

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OBJECTIVE: Coronary Bypass Surgery (CABG) combined with mitral valve surgery is well documented to have higher mortality that either surgery alone. Patients who undergo surgery post recent Myocardial infarction (MI) are at higher risk and patients with severely impaired LV function are expected to carry a very high operative risk. We sought to evaluate the impact of preoperative comorbid factors on mortality, extended ICU and hospital stay among patients undergoing Coronary Bypass Surgery (CABG) combined with mitral valve surgery.
METHODS: Retrospective analysis of 61 patients who underwent combined CABG and Mitral valve surgery between January 2007 and November 2011. We studied the effect of recent MI, severity of LV dysfunction, severity of preoperative MR, the etiology of MR, the urgency of the operation, the severity of pulmonary Hypertension and the type of Mitral valve surgery (Repair or Replacement) on the mortality, ICU and hospital stay
RESULTS: The mean age was 61 + 10.5 years (70.5 % Males and 29.5 % Females). Associated risk factors are shown in the table. Overall Mortality was 11.4 %, mean ICU stay 3.6 days and mean Hospital stay was 20 days(5-108 days).Patients with recent MI (No vs. Yes), mortality was (8%) vs.(13.9%) (p-value=0.69); mean ICU hours were 90.3 vs. 86.0 (p-value =0.87); mean postop hospital days were 21.5 vs. 20.6 (p-value =0.88).For Mitral valve surgery (repair vs. replacement), mortality was (10.3%) vs. (13.6%) (p-value=0.70); mean ICU hours were 90.3 vs. 86 (p-value =0.74); mean postop hospital days were 22.2 vs. 18.9 (p-value =0.56). ischemic mitral valve vs.degenerative valve pathology, mortality was (11.6%) vs. (11.8%) (p-value= 0.99); mean ICU hours were 68.5 vs. 131.4 (p-value=0.03), mean hospital days were 23.4 vs. 14.7 (p-value=0.15)For elective vs. urgent type of surgery, mortality was (0%) vs. (14.9%) (p-value=0.19); mean ICU hours were 69.4 vs. 93.7 (p-value =0.4); mean postop hospital days were 17.5 vs. 22.0 (p-value =0.48)
CONCLUSIONS:univariate and multivariate analysis consistently showed a presence of an appreciable difference among groups.Patients operated on urgent or emergency basis has mortality of 14.9% compared to Zero% in patients operated on elective basis but p value was nonsignificant (0.19)The only statistically significant difference was among valve pathology groups in terms of shorter ICU stay in patients with Ischemic pathology. This could be due to limitations of sample size and consequent low event rates of endpoints of interest. Therefore, we will continue to expand our evaluation of the sample for future reports.

Associated preoperative risk factors

DM	Hypertension	Dyslipidemia	EF < 30 %	Recent MI	Severe MR preop.	Severe pulmonary Hperension	Urgent or Emergency	Ischemic Pathology	Mitral Valve Repair
62 %	72 %	62 %	28.3%	59 %	80 %	16.3 %	77 %	72 %	64 %

OP-313 A MULTI-CENTER INTERNATIONAL RANDOMIZED TRIAL OF CANGRELOR, A SHORT ACTING, IV, REVERSIBLE, PLATELET P2Y12 INHIBITOR IN PATIENTS REQUIRING CARDIAC SURGERY

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OBJECTIVE: Platelet inhibition with a thienopyridine is standard of care in patients with acute coronary syndromes (ACS) and coronary stents. Current guidelines suggest discontinuing platelet P2Y12 inhibiting agents 5-7 days prior to surgery. Unfortunately, this strategy increases the risk of thrombotic complications. Cangrelor is an intravenous, reversible P2Y12 inhibitor, with a half-life of 3–6 minutes. We propose that Cangrelor can be a safe and effective alternative to long-acting, irreversible oral agents, in patients requiring both platelet inhibition and cardiac surgery.
METHODS: In this double-blinded, placebo controlled, randomized, multi-center, international trial (the BRIDGE trial), 210 patients requiring cardiac surgery and a thienopyridine for an ACS or coronary stent were randomized to either Cangrelor or placebo. Phase I was aimed at determining the optimal dose of Cangrelor to achieve effective platelet inhibition (PI), defined as Platelet Reaction Units (PRU) <240, as measured with point-of-care testing (VerifyNowTM). Multiple PI tests were performed from the time of randomization (prior to starting drug) to start of surgery (1-6hr after drug discontinuation). In phase II, with the optimal dose, bleeding, transfusion, and PI rates were compared.
RESULTS: In Phase I (n=10 patients), a dose of 0.75 mg/kg/min achieved effective PI in 80% of samples - this dose was chosen for Phase II. In Phase II, PI was achieved in 96% of Cangrelor (n=106) and 20% of placebo (n=104) patients. When discontinued within 1-6 hours prior to surgery, 26% of Cangrelor and 20% of placebo patients still had PI. While adverse events were common in both groups, most were minor and were rarely clinically significant and none were statistically significant (pre-operatively: 30% Cangrelor vs 29% Placebo, p=0.816; post-operatively: 7.8% vs 5.2, respectively, p=0.454). There was no statistically difference in post-operative atrial fibrillation (p=0.895), renal failure (p=0.301), stroke (p=0.996), MI (p=0.597), or death (p=0.526). Transfusion >5 units of packed red cells were similar in Cangrelor patients (6.9%) and placebo (8.3) (p=0.696). Re-operation for bleeding was similar in both groups (2%, p=0.951). 24 hour chest tube drainage was also similar (p=0.641)
CONCLUSIONS: Cangrelor is an effective, intravenous short-acting, reversible agent for patients requiring platelet inhibition who are awaiting cardiac surgery. Pre and post-operative complications are similar to placebo with no increased risk of post-operatively bleeding. Bridging patients will Cangrelor may be a safe alternative to either abrupt discontinuation of thienopyridines prior to surgery or operating on patients who continue to have platelet inhibition due to reluctance to stop long-acting oral agents.

OP-314 MULTICENTRE CLINICAL RESEARCH ON EFFECT OF TRADITIONAL CHINESE MEDICINE FOR PATIENTS UNDERWENT CORONARY ARTERY REVASCULARIZATION

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OBJECTIVE:A large sample, multicentre, double-blind, randomized clinical trial was designed to evaluate the effect and safety of Traditional Chinese Medicine (TCM) for Post Revascularization Treatment of Coronary Artery Disease, which is one of the National Key Technology Research and Development Program of China（ID:2006BAI04A01）undertaken by Guangdong Hospital of Chinese Medicine and registered in Clinical Trials.gov Protocol Registration system (ID:NCT00965471).
METHODS:270 inpatients with coronary heart disease were chose from 10 first-rate domestic hospitals and randomly divided into control group and treatment group. On the basis of conventional western medicine, patients in control group were treated with placebo one week after CABG for 6 months while patients in treatment group with TCM granules Tiaopihuxin (TPHX). Then all patients were followed up for 6 months.
RESULTS: There were no significant deviations（P>0.05）between two groups on main outcomes, including death toll, number of patients with nonfatal myocardial infarction, CABG retreatment proportion and readmission caused by cardiovascular events. For patients with cardiac function class two, score of angina pectoris and frequency of angina pectoris attacks in 90 days were significantly higher in control group compared with treatment group（P<0.05）. For patients with three coronary vessel lesions, classification of cardiac function in 360 days was significantly higher in control group compared with treatment group（P<0.05）. There were no significant deviations（P>0.05）between the two groups on incidence of adverse event and specific event, and no obvious adverse reaction was found in both groups.
CONCLUSIONS:TPHX, in a way, may ameliorate the cardiac function and symptom of patients after CABG. TPHX was believed as a safe treatment for patients after CABG, especially the patients who were diagnosed as Qixuxueyu according to TCM.

March 3, 2012 / 17:00-18:30 DISEASES OF THE PERIPHERAL ARTERIES AND VEINS: DIAGNOSTIC AND THERAPEUTIC SOLUTIONS – ORAL PRESENTATIONS

OP-320 EVALUATION OF THE RELATIONSHIP BETWEEN THE CAROTIS INTIMA THICKNESS AND EXISTENCE/PREVALENCE OF THE CORONARY ARTER DISEASE

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OBJECTIVE: The relation between the carotis intima thickness which is the sign of the early stage of atherosclerotic changes in arterial system with existence and prevalence of the coronary arter disease was searched in our study.
METHODS: The study group was formed by 50 patients (group-A) who get coronary angiography and determined to have coronary artery disease (44 male. 63,5±9,2 age) and the control group was formed by 50 patients who get coronary angiography and determined to have no coronary artery disease (21 male. 58,5±11,5 age). Fort he bilateral main carotis artery distant wall CIMT measurements were maden by B-mode ultrasounography images in computere supported stuation. Measured mean CIMT values were compared with groups determind according to CAD existence and prevalence. And the importance of CIMT in prediction to existence of angiografhic CAD was determined.
RESULTS: There was no differences between study (group-A) and control (group-B) groups in terms of demographic characteristics and risc factors except the male sex, DM, hyperlipidemia, cigarette, peripheric arterial diseases, left ventricular EF value. Although, the existence of the plaque and calsification in the carotis artery was observed more at study group, this difference was not found as significant (p:0,80). However, in terms of the mean CIMT, the difference between study and control goups was found as statistically meaningful (p:0,00). Mean values measured for both left and right carotis artery independently and the mean average of the measurement belong to both carotis artery were found more meaningful at group-A (p:0,00). When group-A is divided three subgroups according to CAD prevalence, mean CIMT values were found 1,216±0,29 mm at right, 1,250±0,33 mm at left in whose have single vascular disease and found 1,290±0,55 mm at right, 1,281±0,39 mm at left in whose have multiple vascular disease (p:0,00).
CONCLUSIONS:CIMT measurement with B-mod ultrasonography is a chip, noninvaziv and easily applicable methot for determine atherosclerotic cardiovascular disease at early stage and risk clasification in terms of the atherosclerosis.

OP-321 EARLY CLINICAL RESULTS OF CAROTID ARTERY STENTING PROCEDURE

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OBJECTIVE: Stroke is the third most common cause of death worldwide. Carotid artery stenting (CAS) is an alternative to carotid endarterectomy and is transacted in high-risk patients with favorable outcomes. Our aim in this study, declaring the early result of process and to evaluate the applicability, reliability, and the advantages of CAS.
METHODS: The study group consisted of 29 patients who undervent carotid stenting in our clinic between December 2010 and December 2011 for documented carotid stenosis of >70% in asymptomatic patients and >50% in symptomatic (stroke or transient ischemic attack) patients. Distal emboli protection device (Anjioguard®) was used in 28% (8 patients) and 72% (21 patients) of the proximal cerebral protection device (Mo.MA®) was used. Self-expandable hybrid stent was used in all patients. Hemodynamic status of patients were followed up closely before and after the CAS in coronary care unit.
RESULTS:29 patient received the study, 5 (17%) patient were asymptomatic and 24 (83%) of them semptamatic. The mean age of patients was 66±8. In patients with hypertension (48%), diabetes mellitus (50%), dyslipidemia (67%), smoking (50%), and coronary artery disease (78%) was observed. Average carotid artery stenosis of 88±10 and stent length was 38±4 mm. Predilatation was performed in 6 patients and postdilatation procedures were performed on all patients. Mean follow-up period was 3,3±2,6 months (min:1 max:12 months). In two patient two stent were used other patients with single stent were used. After CAS, an avarage 12±17 mmHg decrease in systolic blood pressure and this decline was more pronounced in patient with hypertension (28±16 mmHg). After the procedure, none of the complications of death, MI, and stroke. Only one patient with transient speech disorder was observed and this complication resolved within 24 hours.
CONCLUSIONS:CAS procedures in our clinic with hybrid carotid stent in the early period has very low complication rates. Moreover hypertensive patients with carotis stenosis, CAS procedures lowering systolic blood pressure can provide an additional contribution of antihypertensive therapy.

OP-322 SURGICAL TREATMENT OF COMBINED CAROTID AND CORONARY ARTERY DISEASE

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OBJECTIVE: Ocurrance of myocardial infarction after carotid endarterectomy and cerebrovascular accident after myocardial revascularization procedures are both severe and frequent complications. In this study we aimed to present 10 patients who underwent combined carotid endarterectomy and coronary surgery procedure.
METHODS:10 patients who underwent combined carotid endarterectomy and coronary surgery procedure between june 2006 and july 2008 examined retrospectively also with early and mid-term results. Risk factors, mortality and uneventful survival rates were evaluated.
RESULTS: One patient died due to low cardiac output in the early postoperative period. A Minor neurologic event developed in another patient and resolved spontaneously. All patients included this one,

discharged an average of 7 days postoperatively. In the combine procedure, average carotid clamp time was 22±6,8 min. and aortic cross clamp time was 50 ±14 min. The average length of stay in intensive care unit was 50±4,5 hours. Average hospital stay was 7,4±1,2 days. 90% of patients were followed clinically. During folllow up period of months no patients developed cardiac or neurological problems.
CONCLUSIONS: In the presence of significant carotid stenosis in patients schedules for coronary bypass surgery, in these patients combined procedure can be applied with succes.

OP-323 THE CONTRALATERAL EXTREMITY HAS ALSO BENEFIT FROM THE LOCALLY ADMINISTERED BONE MARROW-DERIVED MESENCHYMAL STEM CELLS AND CORD BLOOD SERUM IN DIABETIC ISCHEMIC WOUND HEALING

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OBJECTIVE: Impaired wound healing could be a disaster especially in diabetes and amputation is the major risk. The aim of this study was to evaluate the benefit of bone marrow-derived mononuclear cells (BMMCs) and cord blood serum on wound healing.
METHODS: Streptozotocin-induced diabetic rat underwent bilateral limb ischemia and wounding. After an 15-mm full thickness defect was made by a skin punch biopsy on both extremities, we evaluated the wound size and histologic evaluation. Diabetic models were established in 28 male Wistar rats by intraperitoneal injection of streptozotocin (45 mg/kg). The rats were randomly divided into 4 groups (n=7). After wounding, the 2x106/kg 1 ml suspensions of BMMCs (group A), BMMCs and 1 ml cord blood serum (group B), only 1 ml cord blood serum (group C), and 1 ml PBS (group D, as control group) were injected directly into the derma of wounds on right legs (the left legs were left as self control). The transverse and longitudinal diameter of wound were measured after the treatment till the wounds were completely recover. When the complete recovery was established skin biopsies were obtained and HE and BrDu staining was performed to evaluate wound healing.
RESULTS: The complete recovery of right legs was established as a mean of 21.4±1.1, 12.9±1.5, 30.0±0.0 and 38.1±1.5 days according to groups A,B,C, and D ($p < 0.05$). The recovery of left legs were calculated as a mean of 27.0±0.0, 24.0±0.0, 35.6±1.1 and 37.3±1.6 days according to groups A, B, C and D ($p < 0.05$). At the end of the recovery, the HE staining showed that vascularity was increased in groups A and B, inflammation was highly increased in group C and fibrosis was highest in group B.
CONCLUSIONS: Transplantation of BMMCs to the ischemic wounds of the diabetic rats accelerate the repair. The best results was obtained in the group which includes both cord blood serum and BMMCs. Interestingly, when we consider the contralateral extremities of the animals, the recovery was also best in the same group although treatment was not applied to the left extremity directly.

March 3, 2012 / 08:30-10:00
SURGICAL SOLUTIONS FOR CONGENITAL HEART DISEASES – ORAL PRESENTATIONS

OP-325 CITRULLINE LEVELS OF PATIENTS UNDERGOING CONGENITAL CARDIAC SURGERY: PRELIMINARY STUDY

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OBJECTIVE: Pulmonary hypertension (PH) can be a significant complication in children after surgical correction of their congenital heart lesions. Nitric oxide (NO) causes cyclic guanosine monophosphate-mediated vasodilation of pulmonary vasculature. Endogenous NO is produced from the metabolism of citrulline, amino acids generated by the urea cycle. Cardiopulmonary bypass (CPB) causes pulmonary endothelial dysfunction through reduction of citrulline substrate. The aim of our study was to determine the effects of total correction procedures with congenital cardiac surgery with or without PH on the circulatory citrulline levels.
METHODS: After receiving ethical committe approval, 22 children with acyanotic congenital heart disease were enrolled. 11 patients with PH, pulmonary artery pressure (PAP) >35 mmHg (Grup 1) and 11 patients no PH (PAP <=35 mmHg)(Grup 2) were included in to this study. Patients presented with atrial septum defect (n=10), ventricular septal defect (n=9) and complete atrioventricular canal (n=3). All of the patients were premedicated 30 minutes before anesthesia with 0.5 mg/kg nasal midazolam. Induction of anesthesia was provided with sevoflurane 7-8%, morphine 0.1 mg/kg and vecuronium 0.1 mg/kg iv. Anesthesia was maintained with morphine, vecuronium and sevoflurane. Blood samples were collected at four different times (T1; before induction, T2; after CPB, T3; 12 hours postoperatively, T4; 24 hours postoperatively). Patients who provided determined extubation criteria were extubated in the ICU. The age, sex, weight, cardiopulmonary bypass (CPB) and aort clamp times (ACT), extubation times, citrulline levels, ICU and hospital discharge days were recorded. Citrulline levels were measured by flourescence detector using high performance liquid

chromatography. Data were analysed by chi-square test and T-test.
RESULTS: There were no differences regarding age, sex, weight, CPB, ACT times between the groups. Plasma citrulline levels decreased in T3 and T4 times when compared T1 levels in both groups. Citrulline levels decreased by 40% 12 hours after operation and 42% 24 hours after operation. These decreases were found to be statistically significant ($p<0.05$).
CONCLUSIONS: In conclusion, we could demostrate that after total correction in acyanotic congenital cardiac surgery with or without pulmonary hypertension citrulline levels decreased.

OP-326 BED SIDE LIGATION OF THE PATENT DUCTUS ARTERIOSUS OF PREMATURE NEWBORNS IN THE INTENSIVE CARE UNIT

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OBJECTIVE: Patent ductus arteriosus in premature newborns may harm the hemodynamic state. PDA results in excessive pulmonary blood flow and decreased peripheral perfusion in premature infants. Medical attempts to close the duct may benefit in many cases. Ibuprofen or indomethacin are widely used for this purpose. Despite medical treatment, there is a group of cases, for whom surgical closure is mandatory.
METHODS: Transportation of premature babies may cause heat loss and respiratory complications. Surgical closure of PDAs can be safely performed in ICU conditions, where mechanical respiratory and hemodynamic support can be managed safely. 31 premature cases have been operated in our institution and bed side PDA ligation has been performed in the majority of cases. All patients were monitored with echocardiography before the operations and multiple doses of indomethacin or ibuprofen have been infused.
RESULTS: Surgical mortality was 1 in 31 cases.
CONCLUSIONS: Surgical ligation of PDA in the ICU conditions is a useful and safe method. Surgical closure is the method of choice in hemodynamic instable patients, if pharmacological closure is not possible.

OP-327 SURGICAL CORRECTION OF DOUBLE AORTIC ARCH

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OBJECTIVE: The first clinicopathological description of a vascular ring is attributed to Bayford who in 1794, described a left aortic arch and anomalous right subclavian artery causing tracheoesophageal compression.The first report of the clinical syndrome of vascular compression produced by a DAA was published by Wolman in 1939. In 1945, Gross performed the first division of a vascular ring by dividing the anterior arch in a symptomatic infant with double aortic arch.Double aortic arch is a common form of complete vascular ring,which occurs with the persistence of right and left fourth arches.
METHODS: Between may 2005 and May 2010 4 patients underwent surgical repair of complete and incomplete DAA at the Dr. Sami Ulus Childrens Hospital. There were 1 male and 3 female patients.Diagnosis was confirmed by esophagography in 2, by aortography in 3, by computed tomography (CT) in 1 and by magnetic resonance imaging (MRI) in 2 patients. Echocardiographic examination showed no associated cardiac anomaly in our patients.The surgical approach for division of vascular rings was left posterolateral thoracotomy. Arch dominance, as determined at time of surgery, was rightsided in all patients as estimated preoperatively. The smaller anterior arch and ductus arteriosus or ligamentum arteriosum were divided and the trachea and the esophagus dissected to be free. Anterior arch was divided distal to left subclavian artery in all patients.In order to avoid secondary fibrous adhesions we preferred suspention of the anterior arch behind the sternum. Prior to division, arch occlusion test was routinely performed while the anesthetist check for the carotid pulses.
RESULTS: There were no early and late deaths. Length of hospital stay ranged from 5 to 7 days. There were no recurrences of symptoms during follow-up.
CONCLUSIONS:DAA manifests earlier than other varieties of vascular rings with symptoms of stridor, dyspnea, cough, and recurrent respiratory infections. Esophageal compression also leads to regurgitation and aspiration pneumonia.In general, the diagnosis of DAA was suggested with chest radiography and barium esophagography in symptomatic patients. Echocardiography with Doppler and color flow mapping, CT angiography and MRI angiography are other important modalities for diagnosis. We recommend surgical division in all patients with DAA. Division of the smaller arch is performed in most cases. The ligamentum arteriosum or ductus arteriosus is always divided. The trachea and esophagus are freed from potentially constrictive bands and fibrous tissue.All experience confirms that the surgical management of vascular rings is effective and associated with low morbidity and mortality.

OP-328 THE RELATION OF NT-ProBNP VALUES WITH MORTALITY AND MORBIDITIY IN CONGENITAL HEART SURGERY

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OBJECTIVE: Type-B natriuretic peptides are synthesized by the cardiac miyosits as a response to increased wall stress,and after being excreted as a prohormone, they are separated as an active hormone (BNP) and NT-proBNP which includes the inactive N-terminal part biologically.. These peptides have diuretic, natriuretic and vazodilator effects. In recent years, type-B natriuretic peptides are defined as a beneficial marker to identify acute and chronic left ventricular disfunction especially in adult patients. In this study, our aim is to see the Nt-proBNP values of the patients who had congenital cardiac surgery and also if there is any relationship between their levels and the postoperative course,mortality and morbidity.
METHODS: For this purpose, the patients who had left-right shunt lesion and ventricular outflow tract obstruction were seperated into two groups as the ones who were in need of high dose (>7,5 mcg/kg/min) inotropic treatment and as the ones who didn"t have any or low dose inotropic treatment during the postoperative intensive care followup. The Nt-proBNP values of the patients were measured before the surgery and after the second (T1) and the twenty-fourth (T2) hours of the surgery. Additionally, postoperative inotropic treatment needs, and duration of the cardiopulmonary by- pass (CPBS), cross-clamp (KK), and mechanical ventilation (MVZ) times of the patients were recorded. A statistically significant difference was found between the cross-clamp duration time of the two groups. There was also statistically high correlation among the inotropic treatment, mechanical ventilation, and staying in intensive care periods.
RESULTS: In our study, it was observed that there was a correlation between the inotropic treatment dose and duration time and the Nt-proBNP level. This situation demonstrates that endogenous compansation activity in neurohumoral mechanism increases in order to fulfill the miyocardial disfunction.
CONCLUSIONS: Many studies have demonstrated that plasma BNP level correlates with LV end diastolic pressure and LVEF in patients with left-sided heart failure.Additionally plasma BNP levels were elevated proportionally with the degree of hypoxia in chronic obstructive pulmonary disease. In this cases BNP release was triggered by increasing pressure and volume stress on the right side of the heart. This study demonstrated that after the surgical treatment of congenital cardiac defects plasma NT-proBNP was significantly elevated in patients who were in need of high dose (>7,5 mcg/kg/min) inotropic treatment than in those who didn"t have any or low dose inotropic treatment during the postoperative intensive care follow up.

Table-1

	Group I	Group II	P
CPB duration	51,62 ± 26,72	81,40 ± 48,00	-
Cross Clemp duration	33,12 ± 22,12	54,00 ± 32,01	P<0,05
Inotropic Infusion duration	22,82 ± 21,10	52,43 ± 36,67	P<0,01
Mechanical ventilation duration	6,25 ± 6,52	14,93 ± 11,55	P<0,01
Intensive care duration	37,06 ± 26,46	104,87 ± 67,30	P<0,01

Group II need of high dose (>7,5 mcg/kg/min) inotropic treatment and group I not in need or low dose inotropic treatment during the postoperative intensive care followup

OP-329 EXREMELY LOW BIRTH WEIGHT INFANTS WITH PATENT DUCTUS ARTERIOSUS: SEARCHING FOR LEAST INVASIVENESS

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OBJECTIVE: The patent ductus arteriosus (PDA) is an important problem in premature infants. Exremely low birth weight infants (ELBWI) are literally so fragile to surgical stress that the minimum invasive procedures should be required. We report 15 ELBWI cases with PDA, who underwent surgical closure. All of them had failed treatment with indomethacin to close PDA or had contraindicated to its use.
METHODS: The mean gestational age at birth was 27.06 weeks (24-38 weeks) and birth weight 1077.66 g (750-1440 g). The mean age at operation was 18.26 days (8-34 days) and body weight at operation 1116 g (800-1460 g). The surgery-related mortality and morbidity was none. Our surgical procedures consists of posterior muscle sparing thoracotomy, clipping PDA, not ligation and closing the thorax without tube thoracostomy. Muscle sparing thoracotomy reduces long-term physical impairment and deformity, clipping technique attributes to minimize the dissection of surrounding tissue of PDA and without a tube; nursing care is simplified, costs are reduced and the number of chest x-rays needed postoperatively is reduced.
RESULTS: Blood loss was minimal and there were no pnuemothorax, chylothorax or chest tube insertion in the ICU, there were no compications associated with surgical procedure. All infants were survived and discharged without supplemental oxygen. One infant was death in the post operative 6th month, another infant is still in pediatric ICU because of intraventricular haemmorhage and treated with a shunt.
CONCLUSIONS: The management of PDA in ELBWI remains in an area of controversy. Indomethacin has been the initial treatment of choice for ELBWI with PDA but excessive morbidity is associated with

prolonged use of indomethacin and higher failure rates of PDA closure with indomethacin reported especially in ELBWI. We believe that surgical closure of PDA without chest tube drainage can be accomplished safely in premature infants.

OP-330 SELF PERCEPTION AND QUALITY OF LIFE OF ADOLESCENTS WHO HAD UNDERGONE OPEN-HEART SURGERY DUE TO CYANOTIC CONGENITAL HEART DISEASE IN THEIR INFANCY

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OBJECTIVE: To assess together with their parents, the quality-of-life of the teenage patients who had undergone open heart surgery because of cyanotic heart disease during their infancy and to compare their self-perception to that of physically healthy control group.
METHODS: This study includes 53 patients who had undergone operation for cyanotic congenital heart disease. Group 1 was the healthy control group, Group 2 included patients with single ventricle who had undergone Fontan procedure, group 3 included patients who had undergone operation for congenital cyanotic heart disease. In this study, the quality of life and self perception scales were used. Quality of life scale was filled by patients, healthy adolescents and their parents separately. Self perception scale was only filled by patients and healthy adolescents. The comparison of age and self perception scores between the groups was carried out with unidirectional Analysis of variance (ANOVA) and the multicomparisons with LSD (Least Significant Difference). Since the quality of life variable does not have a normal distribution, the comparions were carried out with Kruskal-Wallis nonparametric ANOVA test and the multicomparisons with Dunn's test.
RESULTS: There was not a significant difference between the groups in terms of age and sex. In the quality of life scale (QOLS), for the replies to related questions, a significant difference was determined between the groups. The replies of group 2 and 3 for about quality of life of both children and the parents were far more negative when compared to those of the control group. When the groups were compared via multiple comparison tests, there was no significant difference between group 2 and 3. The replies of the parents regarding their children's quality of life, were statistically more negative than those of their children ($p<0.001$). Within the self perception scale, between group 1 and 3, there were significant differences about the social acceptance, behaviours in relationships and general self perception ($p=0.03$, $p=0.03$ and $p=0.01$; respectively). The most significant difference that was detected between group 1 and 2, was about the behaviour in relationships ($p=0.04$).
CONCLUSIONS: With the help of developing technology, and surgical experience, many complex cyanotic heart diseases are treated successfully and most patients reach puberty. However the responses for quality of life and self perception paremeters of this group of patients are more negative than those of the control group. Therefore, these adolescents and especially their parents may need psychosocial support.

OP-331 PREDICTORS OF RE-INTERVENTION IN NEONATES WITH CRITICAL PULMONARY STENOSIS OR PULMONARY ATRESIA WITH INTACT VENTRICULAR SEPTUM

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OBJECTIVE: Describe the short and midterm outcome and to determine the predictors of re-intervention in neonates with critical pulmonary stenosis (PS) or pulmonary atresia with intact ventricular septum (PA/IVS).
METHODS: All neonates with critical PS or PA/IVS who underwent interventional cardiac catheterization between November 2004 and January 2009 were reviewed retrospectively. Comparison between those who required and those who did not require re-intervention to identify the predictors of re-intervention.
RESULTS: Forty three neonates included, 23 (53.5%) had critical PS and 20 (46.5%) had PA/IVS. 26 patients (60%) were males, the mean age was 11 ± 8 days, and the mean weight was 3.2 ± 0.6 kg. Two patients died (4.6%). The Mean follow-up period was 19±13 months for 42 patients. 15 patients (36%) required re-intervention, 11 of them (73%) had PA/IVS and 4 (27%) had critical PS. Re-intervention was more in patients with PA/IVS than those with critical PS ($P=0.003$). Other predictors for re-intervention included hospital stay > 7.5 days ($P=0.001$) and tricuspid valve regurgitation peak gradient in day one post first intervention (TR1) > 43mmHg ($P=0.03$).
CONCLUSIONS: Interventional cardiac catheterization shows favorable outcome for critical PS and PA/IVS patients. Predictors for re-intervention included the diagnosis of PA/IVS, hospital stay >7.5 days after first intervention and TR1 gradient > 43mmHg.

OP-332 LONG TERM RESULTS OF SINGLE PERICARDIAL PATCH REPAIR TECHNIQUE IN SINUS VENOSUS ATRIAL SEPTAL DEFECT

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OBJECTIVE: Sinus Venosus Atrial Septal Defects (SVASD) commonly accompanied by total or partial anomalous pulmonary venous return. Many

techniques have been reported in order to eliminate complications like the narrowing of the superior vena cava or of pulmonary system, residual shunt and arrhythmia. The purpose of this study is to report the long term results of SVASD repair, performed at our clinic, using a single pericardial patch.
METHODS: Between 2000-2010, 421 patients have been operated with a diagnosis of ASD 39 of whom had right upper or mid pulmonary anomalous return. Single pericardial patch technique have been performed on 32 of SVASD patients. Cardiopulmonary bypass is achieved by aortobicaval canulation using standard cardioplegy and moderate hypothermia. Atriotomy incision is advanced starting from the medial part of cavoatrial junction towards the inferior vena cava cannule vertically. If the diameter of the ASD is smaller than 2 cm the defect is expanded. The pericardial patch is sutured clock-wise starting from cavoatrial junction of the superomedial rim. Being sutured to the lateral side of the defect the patch is folded. Suture line will be moved from the inferior of the defect towards inferomedial side of the atriotomy. A V-shaped notch is cut on the pericardial patch so that the obstruction of the SVC is eliminated. The downside of the V and the mid-segment of the patch are sutured to inferomedial side of the atriotomy leaving the pulmonary veins on the leftside of the atrium. Following the process, remainder of the patch is folded backwards and sutured both to the cavatomy and to the unattached side of the atrium superolateral in a fashion that it expands the SVC orifice.
RESULTS: Patients were extubed in 5 ± 1,6 hours. No perioperative or late term mortalities have been observed. One patient developed an atrioventricular block that regressed postoperatively on 6th day. All patients were discharged in 4,6 ± 1,1 days prescribed with anticoagulants. We have 6 months - 2 years postoperative echocardiographic follow-ups of 26 patients. No residual ASD has been observed. No stenosis related findings were observed neither in pulmonary venous system nor in SVC.
CONCLUSIONS:SVASD repair using a single pericardial patch not only reduces the incidence of arrhythmias and prevents residual ASD development but also prevents SVC and pulmonary venous obstructions. This technique especially important for patients who have not completed their growth since the pericardial tissue has the potential to grow.

March 3, 2012 / 10:30 - 12:00 PERCUTANEOUS AND SURGICAL INTERVENTIONS IN CONGENITAL HEART DISEASE – ORAL PRESENTATIONS

OP-338 SINGLE-CENTER 4 YEARS EXPERIENCE WITH SURGICAL MANAGEMENT OF TETRALOGY OF FALLOT

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OBJECTIVE: Tetralogy of Fallot (TOF) is the most common cause of cyanotic congenital heart disease. Survival has improved because of lower operative mortality and surgical repair in early childhood prior to the development of cardiac compromise from chronic hypoxia. We review our series to evaluate the immediate outcome and characterize early survival of surgical treatment of TOF.
METHODS: Operative protocols, patient records, and the database of the department were revealed a total of 148 surgically treated patients with TOF without pulmonary atresia from January 2006 to October 2009. The mean age at operation was 4.54±2.99 years, with a mean weight of 14.05±6.92 kg. Palliative procedures were performed in 13 patients before total repair, while total correction was performed in 135 patients as the initial procedure. A total of 21 patients (14.2%) (mean age and kg: 3.6±3.5 and 17.4±10.7) had pulmonary valve annulus-sparing procedures, predominantly through a transatrial and transpulmonary approach and for 127 (85.8%) (mean age and kg: 4.7±2.9 and 13.5±6.3) patients the right ventricular outflow tract obstruction was relieved by a transannular patch (TAP) along with aggressive resection of the muscle-band within the Right Ventricle (RV). Intraoperative measurements included the pulmonary valve annulus size and the postoperative pressure ratio between the right and left ventricles (RV/LV).
RESULTS: There were 5 early mortality, all were treated with TAP. Post-repair RV/LV pressure ratio values were significantly lower in children without mortality (0.53±0.12 vs 0.72± 0.13; $p < 0.001$). Twenty patients with a tricuspid and one with a bicuspid pulmonary valve with a Z score > -4 had a pulmonary valve-sparing procedure compared with 127 patients with a Z score < -4 had TAP. Among the survivors, there was no significant difference in terms of RV/LV pressure ratio between pulmonary valve-sparing and TAP groups but residual RV outflow tract obstruction was significantly higher in the pulmonary valve-sparing group ($p<0.0004$). Neither of the patients required re-operation due to residual VSD and/or RVOT obstruction.
CONCLUSIONS: The post repair pressure relation between both ventricles is a useful index for the immediate surgical outcome. The aggressive resection of the muscle-band within the RV might be the reason for no re-operation requirement in both TAP and pulmonary valve-sparing strategy.

OP-339 AN UNUSUAL DEFECT AND A RARE COMBINATION: GERBODE DEFECT AND SUBAORTIC MEMBRANE

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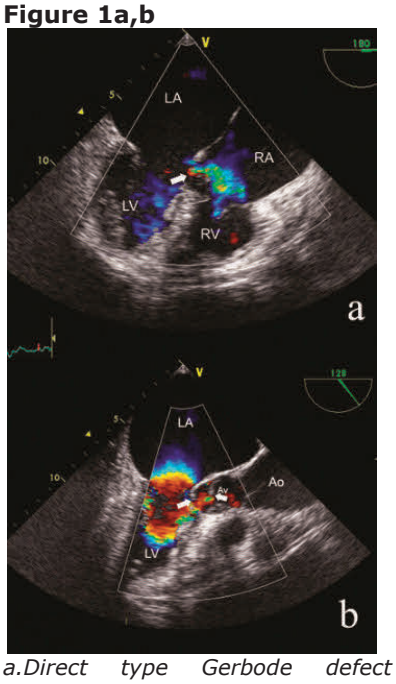
OBJECTIVE:A 70-year-old female patient was referred to our department by the neurology clinic for evaluation of intracardiac thrombus. She was hemiplegic due to embolic cerebrovascular accident. On physical examination, 3/6 holosystolic murmur was heard at the apex and left sternal border. Transthoracic echocardiographic examination revealed normal left ventricular systolic functions with dilated left atrium and right cardiac chambers. Colour Doppler echocardiography showed moderate mitral regurgitation, mild aortic valve insufficiency and subaortic membrane 10 mm below the aortic valve, which causes turbulent flow in the outflow tract. Transmembrane gradient was 30.33 mmHg. Systolic pulmonary artery pressure was measured approximately 35 mmHg. Colour flow Doppler echocardiography indicated eccentric flow jet into the right atrium. Surprisingly, Colour flow Doppler echocardiography indicated moderate eccentric flow jet into the right atrium from the septal leaflet of the tricuspid valve. At first, the flow was thought to be tricuspid regurgiation but it appeared to originate from the membranous septum and to course along the atrial surface of the tricuspid valve consistent with a left ventricular to right atrial communication. Gradient measured through the defect was 70.56 mmHg. Intracardiac thrombus was not seen by transthoracic images. Transesophageal echocardiography was planned for a more detailed assessment, which showed a small perimembranous defect, 7 mm in size, connecting the left ventricle to right atrium. Subaortic membrane and the turbulent flow in the left ventricular outflow tract was assessed more comprehensively. Additionally, a giant thrombus, 4x3.5 cm in size, was detected in the left atrial appendix. There was a significant shunt with a 1.6 Qp/Qs ratio. Surgical treatment was suggested to the patient but not accepted. Known also as the Gerbode defect, shunt from the left ventricle to the right atrium is a rare cardiac condition. In its supravalvular type, blood flows from the left ventricle directly to the right atrium via the defect in the perimembranous septum. In the infravalvular type, blood flows from the left to the right ventricle via the defect in the interventricular septum, and then to the right atrium via a flow region in the tricuspid valve. To the best of our knowledge, there is no previous report on the Gerbode defect concomitant with subaortic membrane in the literature. We present the case of a 70-year-old female patient referred to our clinic for cardiac etiology due to a past serebrovascular disease, and diagnosed with supravalvular Gerbode defect accompanied by subaortic membrane in echocardiographic examination.

Figure 1a,b



a.Direct type Gerbode defect in transesophageal echocardiography four-chamber (180º) images. b.Subaortic membrane and the turbulent flow in the left ventricular outflow tract shown in two-chamber (128º) transesophageal echocardiography. LA: Left Atrium, LV: Left Ventricle, RA: Right Atrium, RV: Right Ventricle, Ao: Aorta, Av: Aortic valve.

OP-340 THE PLASMA ASYMMETRIC DIMETHYLARGININE AND L-ARGININE LEVELS OF PATIENTS WITH CONGENITAL HEART DISEASE AFTER TOTAL CORRECTION: PRELIMINARY STUDY

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OBJECTIVE: Preoperative pulmonary hypertension (PH) is a potentially severe complication after congenital heart surgery that can lead to right ventricular failure, low cardiac output and death. Plasma L-arginine is a substrate and an important source for endothelial-derived nitric oxide synthase. Also, asymmetric dimethylarginine (ADMA) is an endogenous inhibitor of nitric oxide synthease and modulates nitric oxide production. Cardiopulmonary bypass (CPB) leads to significant reduction concentrations of L-arginine and ADMA. The aim of our study was to determine the effects of total correction procedures with congenital cardiac surgery with or without PH on the circulatory ADMA and L-arginine levels.
METHODS: After receiving ethical committe approval, 22 children with acyanotic congenital heart disease were enrolled. 11 patients with PH, pulmonary artery pressure (PAP) >35 mmHg (Grup 1) and 11 patients no PH (PAP <=35 mmHg)(Grup 2) were included in to this study. Patients presented with atrial septum

defect (n=10), ventricular septal defect (n=9) and complete atrioventricular canal (n=3). All of the patients were premedicated 30 minutes before anesthesia with 0.5 mg/kg nasal midazolam. Induction of anesthesia was provided with sevoflurane 7-8%, morphine 0.1 mg/kg and vecuronium 0.1 mg/kg iv. Anesthesia was maintained with morphine, vecuronium and sevoflurane. Blood samples were collected at four different times (T1; before induction, T2; after CPB, T3; 12 hours postoperatively, T4; 24 hours postoperatively). Patients who provided determined extubation criteria were extubated in the ICU. The age, sex, weight, cardiopulmonary bypass (CPB) and aort clamp times (ACT), extubation times, ADMA and L-Arginine levels, ICU and hospital discharge days were recorded. ADMA and L-Arginine levels were measured by flourescence detector using high performance liquid chromatography. Data were analysed by chi-square test and T-test.
RESULTS: There were no differences regarding age, sex, weight, CPB, ACT times between the groups. ADMA levels decreased in T4 when compared T1 levels in both groups. ADMA levels decreased by 45% after 24 hours onset of CPB. These decreases were found to be statistically significant ($p<0.05$). In addition to that, L-arginine/ADMA ratio was significantly increased ($p<0,05$) after 24 hour of CBP. There were no significant differences between the the groups regarding ADMA, L-arginine and L-arginine/ADMA ratio in all times ($p>0.05$).
CONCLUSIONS: In the light of the data, it can be said that after total correction in acyanotic congenital cardiac surgery with or without pulmonary hypertension declining of ADMA levels resulted with an increase in L-arginine/ADMA ratio.

March 3, 2012 / 13:30-15:00
MY CLINICAL AND SURGICAL SCOPE FOR PERIPHERAL ARTERIAL DISEASE – ORAL PRESENTATIONS

OP-341 EMERGENCY OPERATIONS FOR POPLITEAL ARTERY ANEURYSMS

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OBJECTIVE: Popliteal artery aneurysms have clinical manifestations usually due to compression symptoms, intermittent claudication or arterial stenosis. We evaluated the results of the patients operated in emergency conditions in our clinic.
METHODS: Between January 2005 and January 2011, 5 patients were operated due to popliteal aneurysm in our clinic in emergency. All patients were male and the mean age of the patients was 60.2 ±11.1. There was concomittant femoral artery aneurysm in one patient, also femoral and iliac artery aneurysm accompanying in another patient. From the emergent cases one had bilateral aneurysm with unilateral rupture, one had acute arterial stenosis with a chronical basis, one was a patient who had a supragenicular pulsatile mass with necrotic foot wound and the two of them were acute arterial occlusion.
RESULTS: The aneurysm was diagnosed by doppler ultrasonography in 3 of the patients and by magnetic resonance angiography in 2 of them. Of the patients four were operated under general anesthesia and one under combined epidural+spinal anesthesia. Aneurysmectomy / Ligation + PTFE/ reverse saphenous vein/in situ saphenous vein bypass surgery was performed. All patients were heparinized postoperatively.
No mortality was observed in the early postoperative period. Distal pedal arterial pulses were palpabl in two patients and two of the patients had doppler flow distally. Only one patient had no distal flow in foot postoperatively who had an ischemic motor and sensitive deficit initially. Postoperatively above the knee amputation was performed to this patient.
CONCLUSIONS: Popliteal aneurysms have emergency manifestations such as thrombosis and rupture clinically. Prompt diagnosis should be considered before complications develop for elective approach.

OP-342 THE AIM OF THIS STUDY IS TO ASSESS INHIBITING EFFECT OF PENTOXIFYLLINE ON INTIMAL HYPERPLASIA AND SMOOTH MUSCLE CELL PROLIFERATION AT THE ANASTOMOSIS SITE PERFORMED IN RABBIT CAROTID ARTERY

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OBJECTIVE: We aimed to define the effect of pentoxifylline, a phosphodiesterase inhibitor, on intimal hyperplasia and vascular smooth muscle cell proliferation in an anastomosis model of rabbit carotid artery.
METHODS: Right carotid arteries of 18 male New Zealand white rabbits (2–3 kg) were anastomosed under general anesthesia. After the surgical procedure, 18 rabbits were randomized into three study groups (n=6, in each group). Group 1 (control group) did not receive any treatment. Group 2 and Group 3 were treated with 100 mg/kg/day subcutaneous pentoxifylline for 7 and 21 days, respectively. After 28 days, histopathological assessments and histomorphometric measurements were performed on the carotid arterial segments.
RESULTS: In the histological sections, intimal hyperplasia was less evident in the anastomosed vessel wall in pentoxifylline-treated groups than in Group 1. The mean lumen diameter, lumen area, intimal thickness, and intima/media ratio for Group 1 were 472.63 +/-13.28 microm, 301,973.33+/-12,951.27 microm2, 200,844.67+/-8,375.38 microm, and 0.52+/-0.01, respectively. The lumen diameter and lumen area were significantly higher, and the intimal thickness and intima/media ratio were significantly lower, for Group 2 and Group 3 compared with Group 1 ($p<0.05$). However, there was no significant difference between Groups 2 and 3 for these variables ($p>0.05$).
CONCLUSIONS: Subcutaneous pentoxifylline treatment, even for duration of only seven days,

decreases intimal hyperplasia in arterial anastomosis sites in a rabbit carotid artery anastomosis model.

OP-343 RELIABILITY OF ANKLE BRACHIAL INDEX MEASUREMENT BY OSCILLOMETRIC BLOOD PRESSURE MONITORING DEVICE

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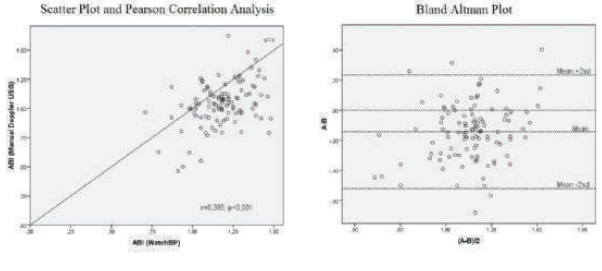
OBJECTIVE: Measuring the ankle brachial index (ABI) is the most commonly used method for diagnosis of peripheral artery disease. Our study was conducted to evaluate the correlation and reliability of ABI measurements of oscillometric blood pressure monitoring device (Microlife WatchBP® Office ABI) compared to manual doppler ultrasound guided ABI measurements.
METHODS:A total number of 53 patients (106 extremities) -who were admitted to our outpatient clinic between September-November 2011- were included in our study. ABI measurements were obtained simultaneously from both oscillometric device and manual doppler ultrasound guided technique. Pearson correlation analysis, Bland Altman Plot and analysis of Kappa were used for statistical analysis.
RESULTS: Mean age of the patients was 46,9 ±14,6 years. Eighteen (34%) patients were female and 35 (66%) patients were male. Twenty-five (47,2%) of the patients had hypertension, 6 (11,3%) had diabetes mellitus, 2 (3,8%) had hyperlipidemia, 3 (5,7%) had coronary artery disease, 2 (3,8%) had carotid artery disease. Bland Altman plot showed that 5 (4,7%) of 106 measurements were out of the mean ±2sd lines. Pearson correlation coefficient was found as 0,395 (p<0,001). Kappa value was found as 0,031 (p<0,001). Sensitivity of the test was 5,6%, specificity was 96,6%. Positive predictive value of the test was 25% and negative predictive value was 83,3%.
CONCLUSIONS: We conclude according to our results that oscillometric blood pressure monitoring devices can be used for approximate evaluations and for routine outpatient controls but results must be verified by using doppler ultrasound guided ankle-brachial index measurements.

Figure 1.



Scatter Plot, Pearson Correlation Analysis and Bland Altman Plot

Table 1.

Kappa value=0,031		Measurements	of	Watch BP
p=0,663		ABI>=0,9	ABI<0,9	Total
Measurements	ABI>=0,9	85	3	88
of Manual	ABI<0,9	17	1	18
Doppler USG	Total	102	4	106

Distribution of cases and analysis of Kappa

OP-344 ILIAC ARTERY ANEURYSMS:OUR TREATMENT MODALITIES

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OBJECTIVE: Isolated iliac artery aneurysms are extremely rare and constitute less than 2% of all aneurysms. These aneurysms are typically seen in older men. We know that they are carrying a serious risk of rupture in their nature but there is no exact definition of this situation. In this article, we aimed to offer our experiences of patients who underwent surgical or endovascular interventions because of isolated iliac artery aneurysms between the years 2009-2011 in our clinic.
METHODS: In our clinic, outpatient clinic and emergency department between 2009-2011 period, 18 patients admitted with a diagnosis of isolated iliac artery aneurysm were evaluated retrospectively. Open surgical intervention or EVAR was performed. Demographic data, localization of aneurysms, the transection type, duration of hospital stay, such as the following parameters were evaluated. A total of 18 patients with a diagnosis of isolated iliac artery aneurysm operations were performed.
RESULTS: Patients, 15 male, 3 female and the ages of patients ranged from 57 to 79. (Average 70.08) Anatomical involvement of the left common iliac artery aneurysms in 7 patients, left internal iliac artery in 4 patients, right common iliac artery in 4 patients, right internal iliac artery in 3 patients. Iliac artery aneurysm in an average diameter of 60.58 mm (40mm-120mm) calculated. Intervention with EVAR was performed in 10 patients. Open surgical intervention was performed in 8 patients. In 9 of the patients the aneurysm was ruptured. EVAR is applied to 5 of these patients and surgical intervention was performed in 4. 3 of the patients who were presenting with ruptured aneurysm, died. 2 of these patients underwent EVAR for emergency situations, open surgery performed in 1 patient. The mean length of hospital stay was calculated as an average 17.83 days. (4-72)
CONCLUSIONS: Most iliac aneurysms, for other reasons during the imaging studies, are determined by chance. More than half of the patients, are symptomatic. These symptoms often occur due to rupture or erosion of surrounding tissues. The lower

abdomen and flank pain are common. Patients admitted to our clinic with a ruptured aneurysm had a mean aneurysm diameter of 63.66mm (51 mm-120 mm) calculated. For this reason, symptomatic iliac artery aneurysms, and 5 cm in diameter should be repaired without delay.

OP-345 THE AIM OF THIS STUDY IS TO ASSESS INHIBITING EFFECT OF RESVERATROL ON INTIMAL HYPERPLASIA AND SMOOTH MUSCLE CELL PROLIFERATION AT THE ANASTOMOSIS SITE PERFORMED IN RABBIT CAROTID ARTERY

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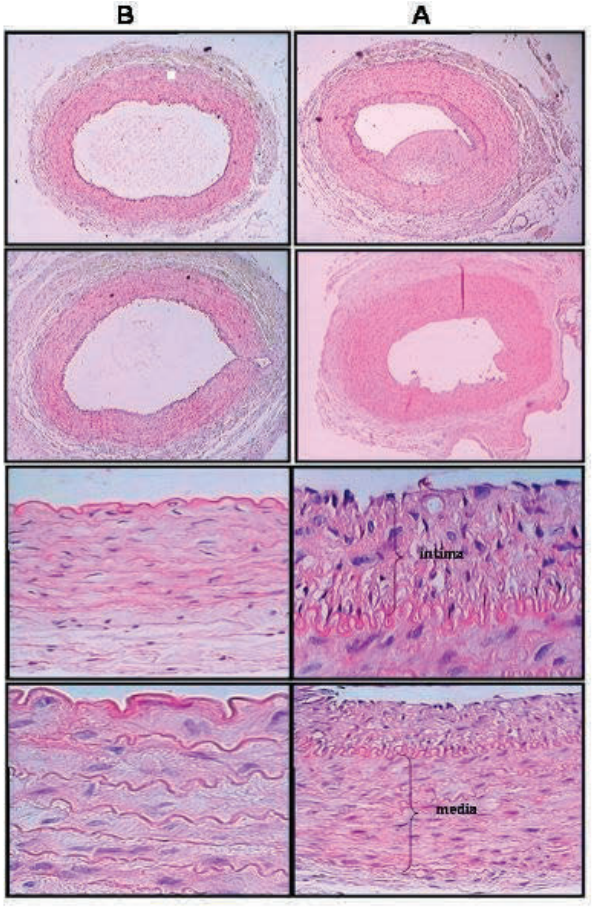
OBJECTIVE: The patency of bypass grafts in long term decreases with intimal hyperplasia in the site of damage. Each arterial reconstruction leads to some degree of endotelial damage. The reaction in the intima to endotelial damage is subendotelial fibroprolifaration and formation of neointima. Neointimal hyperplasia caused by smooth muscle cell migration, proliferation and extracellular matrix deposition plays an important role in the late stage narrowing or restenosis following vascular reconstructive interventions. We assess the effect of resveratrol on intimal hyperplasia and smooth muscle cell proliferation at anastomosis performed in rabbit carotid artery.
METHODS: In this study we planned to use 14 randomized New Zealand male rabbit weights 2 to 3 kilograms. A vertical neck insition was made in an appropriate position to all group rabbits and carotid artery was dissecated. The same artery transected and using 8/0 polypropylene an anastomosis was performed with by one by technique. Group A rabbits (7) assigned as control group. No medication was given to this group. Resveratrol was administrated to group B 1 mgr/kg/day per IV during 14 days. At the end of the day 28 the anostomosis performed carotid artery segments and the contralateral carotid artery of all rabbits were sent to histology laboratory to analyze. The preperations were examined under light microscope. Images were analyzed via digital image analyze program and lumen diamater, lumen area, intima-media area ratio were estimated and results were evaluated. Intima and media thicknesses were measured and the sections were three dimensioned via Reconstruct 1.0.9.9 (JC Fiala) program.
RESULTS: In the serial sections the average lumen diamater of group B was found higher than the group A and this difference was statically significant between group B and group A. The lumen area of group B was found higher than the group A and this difference was significant between group B and group A. When the section series were evaluated for intimal thickness, thickness of group B was lesser than group A and the difference was statically significant between group B and group A. The evaluation of media thickness, thickness of group B was lesser than group A and the difference was statically significant between group B and group A. The evaluation of intima /media ratio showed that it was higher in group A compared with group B and the difference was significant.
CONCLUSIONS: Resveratrol may be a beneficial agent for preventing intimal hyperplasia and smooth muscle cell proliferation after the vascular surgery.



OP-346 EFFECTS OF FRESHLY ISOLATED AUTOLOGOUS BONE MARROW CELL TRANSPLANTATION TO THE CRITICAL LIMB ISCHEMIA BY BOTH LOCAL AND INTRAARTERIAL APPLICATION

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OBJECTIVE: Patients who had experienced peripheral arterial occlusive disease have high mortality and morbidity. They have usually few options as surgery and medical treatment. Here, we analyzed first 5 patients that we applied autologous bone marrow cell transplantation to the critical limb ischemia or patients who had no options.
METHODS: Three of the 5 patients had tromboangitis obliterans and 2 of them had atherosclerotic vascular disease. All had limb treating ischemia (2 had minor amputations, 1 had severely ischemia with ankle

brachial index (ABI) of 0.14, 2 had claudicatio below 200 meters). We used freshly isolated autologous bone marrow cell (Point of Care, Harvest Technologies, Plymouth, MA, USA) transplantation by both local (intramuscular to the ischemic limbs) and femoral intraarterial application. Patients received 10 ml of aspiration material to the intraarterial way to both femoral arteries and the rest of the 30 ml divided to two legs by intramuscular injections. The total number of cells were 4x 105 /kg CD34(+).
RESULTS: The limb salvage was 100 % with a maximum follow-up of 10 weeks. The ABI and walking distances were increased. The analgesic requirement and pain were decreased. There is not any periprocedural complication occurred.
CONCLUSIONS: Autologous bone marrow mononuclear cell transplantation is safe and effective procedure for the patients who had no treatment option because of the critical limb ischemia. It can increase leg perfusion and decrease amputation rate.

OP-347 CONDITIONING EFFECT ON VISCERAL ORGANS DURING THE ISCHEMIA-REPERFUSION INJURY OF SPINAL CORD

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OBJECTIVE: The mortality and morbidity of even extensive thoracoabdominal replacement has improved markedly in recent years. We investigated the effects of a temporary occlusion of the aorta as direct preconditioning or axillary artery for remote preconditioning to search the effects on the development of injury of visceral organs (indirect effects of remote ischemia/reperfusion injury).
METHODS: Thirtyseven New Zeland white rabbits were divided into 5 groups as; control (Sham operated; group 1), direct ischemia without preconditioning (group 2), direct ischemic preconditioning (group 3), remote ischemic preconditioning (group 4), simultaneous direct aortic and ischemic remote preconditioning (group 5). The 30 minutes of aortic occlusion for spinal cord ischemia and reperfusion model was used. Axillary artery was used for the remote preconditioning. After 24 hours, tissue specimens of internal organs were obtained.
RESULTS: Myocardial congestion was the main pathology which was detected in all groups. The histopathological evaluation of the tissue samples that were taken from the hearts showed no significant differences in terms of the degree of PMNL infiltration and edema in between the groups. Lung congestion and pneumonic cell infiltration were detected in all groups. Pneumonic cell infiltration was significantly high in groups 2 and 3. Renal Congestion was found but renal PMN and tubular damage didn't occur in all groups. There was significant difference related with the renal congestion in between the groups 2 and 3. Liver congestion was detected in all groups.
CONCLUSIONS: Different preconditioning methods may play an important role on distinct organ injury during the aortic cross clamping for the aortic aneurysms. The organs which were protected by the direct and remote preconditioning were lung and renal systems. Especially the remote preconditioning considered as advantagous protection method, easy to use and effective during the aortic surgery.

OP-348 THE IMPACT OF THE FEMOROPOPLITEAL BYPASS TO SUCCESS OF THE AORTBIFEMORAL BYPASS SURGERY ON THE SAME SESSION

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OBJECTIVE: For patients who have iliac artery disase with femoral artery stenosis surgical intervention is controversial for TASC II guidelines. In this study we aim to see effect of femoropopliteal (FP) bypass accompanying aortobifemoral(ABF) bypass on the same session to prevent ischemia and early redo surgery.
METHODS: Between October 2010 - November 2011, 22 patient have aortoifemoral bypass surgery on our clinic. We make 3 groups. All patients have severe aortoiliac disease. Group 1 have femoral stenosis <%70 (8 patients), group 2 have > %70 femoral stenosis (6 patients) and group 3 have total femoral occlusion (8 patient). The choice of FP bypass made for patients symptoms. There we no significant difference for Ankle Brachial Index (ABI) score between 3 groups. In group 1, 3 patient; group 2, 2 patient;, group 3, 4 patient have ABF and FP bypass on the same session. The patients have control examination on 1. and 6. month.
RESULTS: In group 2 one patient need urgent FP surgery on postoperative 2.hour because of ischemia. In Group 2, 2 patient and in group 3 for 1 patient need FP bypass surgery in the postoprative 6 moths period who have only ABF surgery previously. No patient have ischemis semptoms who have ABF and FP surgery on the same session. On the control examination all patients walking distance without cladicatio and ABI is increase but there we no significant differance between groups.
CONCLUSIONS: For patients who have iliac artery disase with femoral artery stenosis surgical intervention is controversial for TASC II guidelines. Femoropopliteal bypass surgery addea to the aortobifemoral bypass surgery although prolonged the anestesia time, it has non- sysmptomatic period much longer and protect patients from early redo surgery. We recomended that even if the patient with stenotic or occluded femoropopliteal disease has early filling with contrast by collateral in angiography and have cladicatio, femoropopliteal bypass surgey can performed on the same session with aortabifemoral bypass surgery. Our follow up period

is continuing and study with larger population may be necessary.

OP-349 T2 PROTECTED THORACOSCOPIC SYMPATHECTOMY FOR PALMAR HYPERHIDROSIS

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OBJECTIVE: The aim of this retrospecive study was to compare the outcomes of T2 protected and T2 included video-assisted thoracoscopic sympathectomy for palmar hyperhidrosis.
METHODS: Between January 2007 and April 2011, a total of 172 patients treated for palmar hyperhidrosis were retrospectively reviewed. Patients were divided into 2 groups according to the level of sympathectomy: T2 protected (31 male, 55 female and mean age 27,1) and T2 included (33 male, 53 female and mean age 27,3). Patient satisfaction and postoperative complications were assessed. Evaluated were the presence, location, and severity of compensatory sweating, and the quality of life.
RESULTS: The mean follow-up period was 9 months. Most of the patients presented an improvement in palmar hyperhidrosis, without any difference between the groups. The initial satisfaction rate was 95,34% (n=82) in T2 protected group while in group T2 included was 96,51% (n=83). Postoperatively, compensatory sweating was present in 13 (15,11%) patients of the T2 included group and in 7 (8,13%) patients of the T2 protected group. In addition, compensatory sweating was less severe in the T2 protected patients. There were no mortality and significant postoperative complications in this study.
CONCLUSIONS: Both techniques are effective for treating palmar hyperhidrosis, but T2 protected sympathectomy decreases the rate and severity of compensatory sweating.

March 3, 2012 / 17:00-18:30 CORONARY ARTERY SURGERY: WHAT IS WHAT? – ORAL PRESENTATIONS

OP-359 PULMONARY LACTATE RELEASE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE DURING CARDIOPULMONARY BYPASS

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OBJECTIVE: The etiology of lung injury following cardiopulmonary bypass is multifactorial. Our study focused on quantifying the lactate release from the lungs precipitated by extracorporeal circulation at different time points after the insult and we estimated chronic obstructive pulmonary disease effect to lung injury. This was complemented by an evaluation of the gas exchange at the level of the alveolar-capillary membrane.
METHODS: Total 43 patients underwent coronary artey bypass operation under elective conditions at our clinic were included in the study. Patients were divided into 3 groups. First group including 15 patients was the control group. Second group including 14 patients as type 1 chronic obstructive pulmonary disease group and third group including 14 patients as type 3 chronic obstructive pulmonary disease group. Pulmonary lactate release of the patients, veno-arterial difference in the partial pressure of carbon dioxide, systemic lactate concentrations, alveolar-arteriel oxygen gradient, at the start of the operation while first surgical incision, at the end of the bypass, postoperative sixth hour and eighteenth hour values were saved. Operational data and preoperative characteristics of patients were saved.
RESULTS: Alveolar-arteriel oxygen gradient, systemic lactate concentrations and pulmonary lactate release was increasing during bypass. This increase at second group was significantly more than first group and at third group was significantly more than the second group. At both control group and chronic obstructive pulmonary disease group pulmonary lactate release had a significant relation with the value of cardiopulmonary bypass time, alveolar-arteriel oxygen gradient and systemic lactate concentrations. At chronic obstructive pulmonary disease groups pulmonary lactate release had a significant relation with mechanical ventilation time.After coronary artey bypass surgery, lungs release lactate and this releasing is more at chronic obstructive pulmonary disease patients; lungs with chronic obstructive pulmonary disease are more damaged after coronary artey bypass surgery.
CONCLUSIONS: We think that after coronary artey bypass surgery, estimation of the pulmonary damage caused by lactate released from lungs is remarkably important for the planning of extubation and treatment of the patients.

OP-360 NORMOTHERMIA ENABLES LESS REQUIREMENTS OF DEFIBRILLATION AFTER AORTIC DECLAMPING AND POSTOPERATIVE CARDIAC PACING IN PRIMARY ELECTIVE CORONARY BYPASS OPERATIONS FOR PATIENTS WITH LOW EJECTION FRACTION

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OBJECTIVE: Despite improvements in myocardial preservation techniques, coronary artery bypass grafting in patients with low ejection fraction is still a debated issue. The aim of this study is to investigate that whether normothermic bypass is superior to mild hypothermia in defibrillation rates, postoperative requirements of cardiac pacing, other morbidity issues and mortality.

METHODS: The datas are collected retrospectively from 63 patients with low ejection fraction undergoing primary elective coronary artery bypass surgery between January 2002 and January 2011. Preoperative echocardiography and cardiac catheterization were performed in all patients. Comorbidities such as diabetes mellitus, hyperlipidemia, peripheral arterial disease, chronic obstructive pulmonary disease, chronic renal failure, hypertension, postoperative inotropic and intraaortic balon pump requirements were noted. All operations were performed under cardiopulmonary bypass and cardiac arrest was obtained with antegrade blood cardioplegia. Patients operated at temperatues below 34ºC were group 1 and above 34 ºC were group 2. All allocated datas were compared and p< 0.05 was considered significant.
RESULTS: Preoperative and operative patient characteristics related with the study groups were shown at Table 1. There was no statistically significant difference between groups in terms of preoperative patient characteristics. Also there was no statistically significant difference between groups in terms of postoperative atrial fibrillation, stroke and renal failure development. Intraaortic baloon pump requirement was higher in group1. Even longer aortic cross clamp time and total bypass time among group 2, they had less defibrillation rates after aortic declamping compared to group 1. Group 2 also had less postoperative pacing requirement. Hospital mortality was not affected in both groups.
CONCLUSIONS: Surgical revascularization by multivessel bypass grafting can be performed safely, with satisfactory hospital mortality in patients with low ejection fraction. Normothermia enables less requirements of defibrillation after aortic declamping and postoperative cardiac pacing in primary elective coronary bypass operations for patients with low ejection fraction.

OP-361 IN-HOSPITAL OUTCOMES OF PEDICLED BILATERAL INTERNAL MAMMARY ARTERY USAGE IN DIABETIC AND NON-DIABETIC PATIENTS UNDERGOING OFF-PUMP CORONARY ARTERY BYPASS GRAFTING: SINGLE SURGEON, SINGLE CENTRE EXPERIENCE

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OBJECTIVE:A common perception is that use of pedicled bilateral internal mammary arteries increases the risk of sternal wound complications in diabetic patients undergoing coronary artery bypass grafting. The purpose of this study was to compare the in-hospital outcomes of coronary artery bypass grafting using bilateral pedicled internal mammary arteries in diabetic and nondiabetic patients.
METHODS: From September 1998 to September 2010, 390 consecutive diabetic and 519 nondiabetic patients underwent isolated off-pump coronary artery bypass grafting using bilateral pedicled internal thoracic arteries. The two groups had comparable preoperative demographics except for a higher prevalence of acute myocardial infarction (18.9% vs 6.1%, P = 0.01), peripheral vascular disease (17.2% vs 2.7%, P = 0.001), ejection fraction < 30% (17.7% vs 8.5%, P = 0.02) and chronic renal failure (4.5% vs 0.9%, P = 0.01) in diabetic patients.
RESULTS: Operative mortality of diabetic patients was comparable with that of nondiabetic patients (2.8% vs 2.1%, P = 0.87). The in-hospital outcomes including occurrence of superficial and deep sternal wound infection were similar except for increased occurrence of vein harvest site wound infection (6.6% vs 1.1% p = 0.04) and need for haemofiltration (11.8% vs 2.1%, P = 0.02) in diabetic patients.
CONCLUSIONS: Pedicled bilateral internal mammary artery usage is associated with similar incidence of sternal wound complications and other outcomes in diabetics patients compared to nondiabetic patients. Strict perioperative glycaemic control, adherence to meticulous closure technique and postoperative surgical wound management can make pedicled bilateral internal mammary artery usage a default strategy for diabetic patients.

OP-364 STEROIDS IN CARDIAC SURGERY

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OBJECTIVE: Cardiac surgery may cause systemic inflammation and cardiopulmonary bypass accelarates proinflammatory response. Steroids as an anti-inflammatory drugs, decreases systemic inflammatory response and also adverse effects of cardiopulmonary bypass. We aim to show the early effects on morbidity and mortality in preoperatively steroid using patients.
METHODS: Between 2008-2010 there were 18 patients usings steroids for varied reasons had undergone cardiac surgery at our clinic. These patients data was collected retrospectively. Among the patients, 10 of them was male. Mean age was 56,7±11,6 years. Patients had undergone different types of cardiac surgery with cardiopulmonary bypass.
RESULTS: Among the patients, 14 of them was prescribed steroids for autoimmune disorders, three patients for central nervous system disorders and one patient for pericarditis. No intraoperative adverse event was occured. At the intensive care unit seven patients had inotropic support and intra-aortic balloon pump was used for one patients. Postoperative complications had occured in five patients (renal failure in two patients, pulmonary infection in two patients and atrial fibrillation in one patient). There was two hospital mortalities in our study group.
CONCLUSIONS: Chronic steroid usage may have some beneficial effects in these patients as decrease in inflammatory response. However, generally the cause of steroid usage is a co-morbidity in cardiac

surgery and may have an adverse effect on outcomes of cardiac surgery.

OP-365 OUTCOMES OF CARDIAC SURGERY IN OCTOGENARIANS IN CENTRAL ANATOLIA

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OBJECTIVE: Increasing longetivity of the population leads to more elderly patients demanding healthcare in cardiac surgery. But there is still skepticism regarding cardiac interventions in the elderly. Our study aimed to compare postoperative variables in patients aged 80 years or less with octogenarians (age 80-89) after cardiac surgical interventions.
METHODS: Subjects were all patients (n:1253) who had open heart surgery in Central Anatolia in the same cardiac center. Propensity score matching was done in order to discern the impact of age on preoperative variables. Morbidity and mortality outcomes in 32 patients aged 80 and older and in 1221 patients aged 80 or less who underwent cardiac surgery were compared.
RESULTS: After propensity score matching each group had 32 patients who were matched on all baseline preoperative characteristics. Arrhytmias occurred more frequently in the older age group. Intensive Care Unit and hospital length of stay, number of blood and blood products transfused, postoperative complications and mortality rates were similar in both groups.
CONCLUSIONS: The two age groups had similar morbidity and mortality. Advanced age is not associated with worser outcome after cardiac surgery with a propensity score matched younger age group

March 3, 2012 / 15:30-17:00
PERFUSION – ORAL PRESENTATIONS

OP-368 THE EFFECT OF MODIFIED ULTRA FILTRATION (MUF) ON POSTOPERATIVE BLOOD PRESSURE IMPROVEMENT & ICU STAY IN NEONATAL & PEDIATRIC HEART SURGERY

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OBJECTIVE: Modified ultra filtration (MUF) improves systolic blood pressure and left ventricular performance, as well as lowering transfusion requirements, after CPB. Besides, MUF as a clinical strategy aimed at removing inflammatory mediators, reducing edema formation, and improving organ function that. To assess the effect of MUF on postoperative blood presure and the length of ICU stay after pediatric CPB, we collected blood samples up to 48h postoperatively from 30 children aged between1 to 72 months who were scheduled to the repair of various congenital heart defects
METHODS: In a prospective study, 30 consecutive patients weighing 5±0.82 kg with the mean age of 35.53±6 months were entered, all of them scheduled for corrective cardiac surgery. There were 14 (46.7%) male and 16 (53.3%) female with different kinds of congenital heart defects [12 (40%) TGA,10(33.3) VSD,3(10%)TF3(10%)TAPVC, 1(3.3%),PA ATRESIA AND 1(3.3%)TCPC] were scheduled for total correction procedures. MUF was done after cessation of CPB. Preoperatively, intra operatively and postoperativly blood samples were drawn at specific intervals to evaluate hematologic & biochemical data.The ventilation, intubation time, the ICU and hospital stay durations had been measured. We compared the intraoperative transitions of blood pressure and hematocrit, and analyzed the correlations between blood pressure and hematocrit at 20 min after CPB (immediately after MUF)and between the percent increases in blood pressure and hematocrit during modified ultrafiltration.The patients that inotrop had been used for them during the bypass has been excluded from the study.
RESULTS:MUF had significant relationship with ventilation time (p value=0.018), intubation time (p value=0.021), ICU stay(p value=0.006) and hospital stay(p value=0.011). Increases in hematocrit (30.4% +/- 2.8% to 33.9% +/- 6.1%, $P < 0.01$) and systolic blood pressure (61.1 +/- 10.3 to 75.6 +/- 11.5 mmHg, $P < 0.01$) occurred during MUF.. Furthermore, diastolic and mean blood pressure was higher after MUF. However, systolic, mean, and diastolic blood pressure was not correlated with increased hematocrit after MUF, and there was also no correlation between the percent increases in each blood pressure and hematocrit.
CONCLUSIONS: The positive influence of MUF on duration of postoperative mechanical ventilation,intubation, ICU and hospital stay shows the accelerating effect of MUF on the process of rehabilitation in pediatrics.. MUF increased blood pressure and hematocrit immediately after CPBin children. However, no correlations were detected between the increases in blood pressure and hematocrit. These results indicate hemoconcentration is not the major cause of the increased blood pressure during modified ultrafiltration

OP-369 THE EFFECTS OF SINGLE AND DOUBLE RESERVOIRED OXIGENATORS ON INFLAMMATORY RESPONSE IN EXTRACORPOREAL CIRCULATION

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OBJECTIVE: Extracorporeal circulation is one of the most important invention of modern medicine which induce open heart surgery possible. In extracorporeal circulation blood and ingredients of blood contact with given solution and artificial surfaces. After extracorporeal circulation, coagulapathies and important pathological changes in cardiac, pulmonary, renal and cerebral functions. Also

systemic diferentiations as fever, increased capillary permeability, increased interstitial fluid collection and leucocytosis reported. In this study, by using two different oxigenarators, we tried to search their effects on cytokines, complements, CRP and WBC levels. We studied on 24 patients, who undergoing coronary bapass surgery by CPB, at Abant Izzet Baysal University, Faculty of Medicine, Department of Cardiovascular Surgery, between Apr, 2010-Oct, 2010.

METHODS: Patients divided into two groups; Studied group (single reservoir oxigenarator) and control group (double reservoir oxigenarator). Blood samples for cytokines (TNF alfa, Il6, Il8, Il10 – ELISA), complements (C3, C4 - ABBOTT C8000), CRP (NEFELOMETRIC) and WBC (ABBOTT CELL- DYN) were obtained from radial arteriel line:

(1)after intravenous heparin (3mg/kg) administration before CPB,

(2)6 hours after CPB,

(3)24 hours after CPB

RESULTS: In our study, we didn't find statistically important difference between single reservoir and double reservoir groups according to age, sex, height, body weight, DM and HT.

CONCLUSIONS: In extracorporeal circulation, consisted systemic inflammatory response coagulation activates, callicrein and complement cascades. This situation causes the increase of morbidity and mortality. Several ways are being tested such as; heparin-coated lines, shorten the duration of CPB, the content of prime solution, working with different temperatures and immunosuppresives to reduce the inflammatory response in CPB.

OP-371 THE IMPORTANCE OF HYPOTHERMIA CONTROL IN SHORTENING OF THE BYPASS TIME IN PEDIATRIC CASES

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OBJECTIVE: To investigate the effects of enviromental factors before cardiopulmomary bypass initiation while reaching the hypothermia levels required for cardioplegic arrest in pediatric cardiovascular surgical interventions.

METHODS: Between nowember 2009 and nowember 2011, 659 pediatric open heart surgical precedures were done in our clinic. Receorded rectal temperatures when the patients were taken to the operation room, at initiation to the cardiopulmonary bypass and at cross clamp, the temperature of the prime volume, time between initiation of cardiopulmonary bypass and cross clamp application, time of cardiopulmonmary bypass, the number of patients who had ventricular fibrillation in the cooling period and postoperative mortality investigated retrospectively.

RESULTS: Mean rectal temperatures while the patient; taken to the operation room was 36.2±1.6 ºC, at the initiation of cardiopulmonary bypass was 33.8±1.2 ºC and at the time of cross clamp was 30.4±0.6 ºC. The mean prime volume temperature was 33.7±1.5 ºC. Mean time between the initiation of cardiopulmonary bypass and cross clamp application was 4.2±3.1 minutes, mean cardiopulmonary bypass time was 79±42.2 minutes. There were 7 patients who had ventricular fibrillation in the cooling period, 2 of them were first opening and 5 wereredo cardiac surgical patients. There were 26 exitus in 659 patiens operated, and the early mortality rate was calculated as % 4.2. There was no mortalities in the patient group who had ventricular fibrillation in the cooling period.

CONCLUSIONS: Usually mean time to decrease the body temperature to 30 ºC from the normal body temperature is 20 – 25 minutes, it is known that shortening of the bypass time is a positive factor for the patient. Decreasing the cooling time from 20 – 25 minutes to 4.2 minutes indicates 20 % of shortening of the bypass time with the 79 minutes of mean bypass time. It can be tought that with the priming volume temperature close to the body temperature, can lower the hypothermia originated mechanical complications of the cold blood sent to the coronary arteries with the initiation of the bypass. And again with the same reason we think that, providing of the meeting of peripheral arterial vascular bed with the cold priming volume can decrease the acute vasoconstruction response leading to hiperlactatemia, and also with dilated arterial vascular bed, cooling procedure can be done more effectively in shorter durations.

OP-372 EXTRACORPORAL MEMBRANE OXYGENATOR SYSTEM NURSERY IN TURKEY

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OBJECTIVE:ECMO Usege increased recently in Turkey. Many cardiac centers interested in this new era, but still there are not enough standardised ECMO teams even in the centers which the ECMO sysetms are used frequently. The aim of this study is to questionare the reasons of the lack of professional ECMO teams still in Turkey.

METHODS:ECMO Using centers and total number of used ECMO systems were collected from serving companies. Operating teams and operating protocols were questionared from the centers which uses ECMO. All results were evaluated retrospectively.

RESULTS: During 2011 ECMO systems were used in 26 centers in Turkey. Only 4 of these centers had ECMO Teams which lead the system in case of indication. these teams. In other centers ECMO utilization was performed by perfusionists according to surgeon' s advices. And none of the ECMO team members in these 4 centers had an ECMO nursery certification or organised ECMO nursery education.

CONCLUSIONS:ECMO system is available and its usage is increasing in Turkey. As the optimisation of patient care is the main goal of medical professionals, ECMO team members education must be donated with the novel informations by continous and accredidated certification programs.

OP-373 TO SCRUB; HOW MUCH WE KNOW, HOW MUCH WE DO?

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OBJECTIVE: Surgical hand scrub (SHS) is something that all surgical team members (STM) do, but generally don't really discuss or share techniques for. Are we doing it the best way or doing it enough? The aim of this study is to observe the habits of STM and update our knowledge about SHS.
METHODS: We observed the surgical team members (n=77) (surgeons, assistant surgeons and nurses) scrubbing time twice in a single-blind fashion and tested our knowledge with a questionary.
RESULTS: Almost all surgical team members have learned surgical hand scrub technique from a senior staff (surgeon or nurse) and are not sure that the technique they use is the right one. Mean surgical hand scrub time is less than 2 minutes and the difference was insignificant among surgeons, assistant surgeons and nurses.
CONCLUSIONS: There is no standard SHS technique accepted by all institutions but each institution should warn STM to perform a standardized procedure based upon manufacturer's written instructions that are specific to the scrub solution used in their hospital. A timer might be useful to standardize SHS time individually.

March 4, 2012 / 08:30-10:00 CARDIOVASCULAR NURSING – ORAL PRESENTATIONS

OP-376 NURSING APPROACHES ABOUT BREAST-FEEDING TRAINING AND TECHNICS DURING POSTOPERATION PERIOD IN PEDIATRIC KVC INTENSIVE CARE UNITS

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OBJECTIVE: Nowadays, breast-feeding is supported for each disease or environment. During postoperation period, the continuity of breast milk and breast-feeding comes to mind first about nursing infants feeding. When pediatric KVC operations started in 2002, breast milk was given with feeding bottle or feeding catheter to the nursing infants and the mother could see her baby outside the intensive care unit for only limited period of time. Mother's room was located next to intensive care units and mother trainings were provided here. Stress control to avoid loss of breast milk, correct feeding, milking and the puerperium trainings were given. Mothers of the operated infants were reluctant to touch their babies lying on open beds and they avoided to breast feed their babies because they were afraid of injuring the baby. Nowadays, the mother's participation in breast-feeding and care are included in the patient care plans.
METHODS: Observation and Nursing Practice, Parents - Personnel Educations. Our hospital has 14 pediatric KVC intensive care unit beds to care after congenital operations. Mother trainings are very important to provide continuity of efficiency and quality of breast milk of the mother under heavy stress. Training role of nursing comes into prominence here. Together with the operation of the baby, mother's training must be taken into nursing plan.
RESULTS: Mother-friendly practices within the scope of strengthening the mother-infant relationship, reducing family's stress to participate care activities, trainings were given to intensive care staff. Physical conditions of intensive care units were changed so that mothers could spend more time with their babies. Mother breast feeding training and the puerperium training are take part under basic trainings. Infant carrying, lifting, movement in the bed, the mother breast-feeding and baby care trainings are planned and they are ongoing. Policies and procedures related to mother-infant approaches have been established. After physical changes in intensive care units, introduction of ergonomic forms of patient's head eqipments for breast feeding and reducing mother's stress by planned trainings have been performed, mothers have started to touch and breast-feed their babies.
CONCLUSIONS: Within this process, intensive care unit staff and the hospital management have gained experience and applications have become routine. In addition to the mother, our efforts for father's or first-degree relatives' participation to baby care, still continue.

OP-377 BED SIDE LIGATION OF PATENT DUCTUS ARTERIOSUS IN THE INTENSIVE CARE UNIT

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OBJECTIVE: The scope of this paper is to evaluate thefeasibility of bed side ligation of patent ductus arteriosus (PDA) in the intensive care unit (ICU).
METHODS: We present 12 premature newborns with PDA, who were operated in 2010 and 2011. All PDA ligation procedures have been performed bed side in the ICU.
RESULTS: All patients were successfully operated in the ICU. No surgical mortality has been occurred.
CONCLUSIONS:PDA results in excessive pulmonary blood flow and decreased peripheral perfusion in premature infants. Pulmonary congestion, heart failure, intraventricular cerebral hemorrhage, necrotizing enterocolitis, bronchopulmonary dysplasia, failure to thrive and retinopathy are major consequences in those cases. Surgical closure of PDA is necessary for cases, in which medical attempts dos not success (1). Some surgical procedures can be safely performed outside the operating room,

including ligation of PDA. Surgical closure is the method of choice in hemodynamic ally instable patients, if pharmacological closure is not possible. Surgical approach in ICU conditions offer lower transportation risk and maintains regular body temperature (2, 3).

OP-380 THE RELATION BETWEEN STAY PERIOD OF PERIPHERAL INTRAVENOUS CATHETERS AND THROMBOPHLEBITIS

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OBJECTIVE: This study was experimentally planned in order to examine the relation between stay period of peripheral intravenous catheters and thrombophlebitis.
METHODS: The sample included 100 patients who fulfilled study criteria and consented to participate to the study among the population. Fifty patients formed the control group, while study group comprised another 50 patients. Catheters of patients in control group were left inside vessel until clinical symptom is observed, while catheters of patients in study group were routinely replaced in 72-96 hours irrespective of clinical symptoms. In the study, thrombophlebitis rate as well as variables related with catheter (stay time of catheter in vein, gauge of catheter, anatomic region where catheter was inserted), variables related with patient (age, gender, weight, familial history of vascular disease, status of smoking) and variables related with intravenous therapy administered (status of antibiptherapy, use of anticoagulant and status of intravenous fluid infusion) were examined.
RESULTS: Thrombophlebitis did not develop in 75 patients (75.0 %), while 25 patients developed thrombophlebitis (25 percent). Thrombophlebitis rate and stay time of catheters were significantly low in study group patients. ($p<0,05$).
It was found that antibiotherapy rate was significantly higher in patients with thrombophlebitis. ($p<0,05$).
As a consequence of correlation analysis conducted in order to determine the relation between age and stay time of catheter (in hour), no statistically significant difference was found between scores. ($r=-0,109$; $p=0,280>0,05$).
Catheterization period was significantly low in smoking patients. ($p<0,05$). Catheterization period was significantly higher in patients without familial history of vascular disease. ($p<0,05$).
CONCLUSIONS: The rate of thrombophlebitis was 25 % in the study. It was found that the rate of thrombophlebitis was low in study group and there was a significant relation between stay time of catheter in the vein and thrombophlebitis and thus, it is recommended that catheters are replaced once in every 72-96 hours. No significant relation was found between thrombophlebitis and gauge of catheter, anatomic region where catheter was inserted, age, gender, weight, familial history of vascular disease, smokinh status, intravenous therapy status and anticoagulant therapy status. The rate of thrombophlebitis was high in patient receiving antibiotherapy. Therefore, it is recommended that peripheral intravenous catheters of patients receiving antibiotherapy is more often monitored for development of thrombophlebitis and catheters are replaced in shorter intervals. It was found that catheter stay time was shorter in smoking patients and in patients with familial history of vascular disease.

OP-381 THE EVALUATION OF PLEASURE DEGREE OF THE PATIENTS WHO ARE LINING IN CARDIOVASCULER SURGERY SERVICE AND RELATED TO DISCHARGING FROM HOSPITAL

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OBJECTIVE: The object of this study is the evaluation of pleasure degree of patients who are lining in Ankara University Medical Faculty Cardiovasculer Surgery service.
METHODS: The datas of this study which has experimental type, were collected between 1th November 2011 and 1th December 2011. The datas were collected from 100 patients who were lining cardiovasculer surgery service by using "the form of collecting social-demographic data" and "The Ministry of Health's scale of patients' pleasure" The experiment group (n=50) was applied "discharge traning" and the control group (n=50) was not applied "discharge training". SPSS pocket programme 10.0 and t test were used for statistical analysis of the datas of this study.
RESULTS:% 44 of experimentgroup were female, % 78 of control group were male. The average age of experiment group was 52,56±11,48 and the average age of control group was 57,8±8,49. There was significant difference between two groups about pleasure degree ($p<0,05$)
CONCLUSIONS: We concluded that the patients who were applied "discharge training" were discharged from hospital more pleasure than the patients who were not applied "discharge training"

OP-382 COMPARISON OF DIFFERENT OXYGEN DELIVERY METHODS AFTER CARDIAC SURGERY

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OBJECTIVE: In the postoperative period after cardiac surgery, there are two methods for oxygen delivery after recent extubation. The aim of this study is to compare the different oxygen delivery methods after open heart surgery.
METHODS: Forty patients who underwent cardiac surgery consecutively, were enrolled to the study. The patients with any history of pulmonary disease were excluded from the study. The patients divided into two groups. In the Group A (n= 24) oxygen delivery was achieved by facemask whereas in the Group B (n=16) it was delivered by nasal prongs after extubation. 4L/minute of oxygen was given to all patients. The blood gas samples in the 1., 3., and

6. hours after extubation were recorded and evaluated for changes in respiratory parameters. **RESULTS:**The datas were analyzed using univariate analysis. There weren't any significant difference between the two groups ($p>0.05$). **CONCLUSIONS:**We concluded that after cardiac surgery there was no difference between two oxygen delivery methods by the means of respiratory parameters in the blood gas samples.

March 3, 2012 / 08:30-10:00 CARDIAC IMAGING IN MOTION I – VIDEO PRESENTATIONS

VP-004 VENTRICULAR TACHYCARDIA DUE TO INFILTRATION OF INTERATRIAL SEPTUM WITH GASTRIC LYMPHOMA

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[2]Department of Cardiology, Ankara Numune Education and Research Hospital, Ankara, Turkey

OBJECTIVE: Clinically evident cardiac metastases from malignant neoplasms are uncommon, although they are more frequent than primary cardiac tumors. The most commonly involved primary tumors are carcinoma of the lung, carcinoma of the breast, lymphoma, and malignant melanoma. Metastatic cardiac involvement occurs most often during the terminal stage of the malignant disease, associated with wide spread of the tumor, and it is generally diagnosed at autopsy.
METHODS: In this paper we report a case of an interatrial septal metastasis presenting with ventricular tachycardia and emphasize the diagnostic problems of secondary cardiac tumours, the symptoms of which are often unspecific and late.
RESULTS:A 39-year old woman was taken to coronary intensive care unit with the diagnosis of ventricular tachycardia while she had been following in the medical oncology clinic for gastric lymphoma. She had no history of cardiovascular disease. Whereon no respone to antiarrhythmic medication was seen, direct current cardioversion was perfomed two times and normal sinus rythm was achieved. All the coronary arteries were intact without any plaque formation in coronary CT angiography. But thickening in the interatrial septum and superomedial and lateral walls of right atrium and increase in the soft tissue density were reported. Echocardiographic imaging also showed thickening of the interatrial septum with a left ventricular ejection fraction of 68 % without any abnormality of other cardiac structures.(Figure 1.) Consequently it was rational to speculate that the interatrial septum may be infiltrated with metastasis of lymphoma. The MRI reported a soft tissue lesion with 28x37x25 mm in size. The MRI report commented that it was reasonable to evaluate this view as the involvement of interatrial septum with metastasis of lymphoma especially when it was beared in mind that she had been under treatment of this disease. Therefore in the absence of any displayed reason for arrhytmia, we also suggested that infiltration of atrial septum with lymphoma caused ventricular tachycardia. The expected survival of the patient was longer than one year according to the oncologists. So, to prevent sudden cardiac death, implantable cardioverter defibrillator implantation was performed and the patient was transfered to the oncology clinic for continuation of chemotherapy.
CONCLUSIONS: The appearance of a cardiac arrhythmia in the absence of known cardiac disease should raise the possibility of a cardiac metastasis in patients with malignant disease. So in patients with malign process,cardiac metastasis of the disease should be considered especially when patients present with cardiovascular symptoms.
Figure 1. Transthoracic echocardiography apical four chamber view showing interatrial septal lesion 28x37x25 mm in size.

VP-005 SUCCESSFUL BIVENTRICULAR ASSIST DEVICE (BERLIN HEART EXCOR) IMPLANTATION IN A 17 MONTHS OLD GIRL WITH DILATED CARDIOMYOPATHY

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Department of Cardiovascular Surgery, Izmir, Turkey

OBJECTIVE: Ventricular assist devices are useful supplements for the treatment of cardiac failure. Berlin Heart Excor Biventricular Assist Device is an FDA approved tool for long term treatment in pediatric cases. We have implanted Excor BiVAD in a 17 month old girl with dilated cardiomyopathy as a bridge to transplantation.
METHODS:A 17 month old girl was referred to our clinic with congestive heart failure. She was in poor condition and unable to walk. We have interned her in the intensive care unit. She was on high dose of positive inotropics and entubated immediately after hospitalization. We have planned cardiac transplantation for her and included in the urgent recipient list.
RESULTS: Berlin Heart Excor BiVAD was successfully implanted on August 2011. She is in well condition during follow up: She is able to walk without help, gained weight, without need of high dose inotropics.
CONCLUSIONS: BiVAD implantation is a feasible and challenging tool in selected pediatric cases. This successful implantation has proved that life expectancy can be increased in those cases.

March 3, 2012 / 13:30-15:00 SURGICAL TECHNIQUES IN MOTION – VIDEO PRESENTATIONS

VP-015 NEW TECHNIQUE IN MITRAL VALVE REPAIR. ARTIFITIAL CHORDS WITH NO KNOTS ON THE CUSP

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OBJECTIVE: Mitral valve repair techniques are widely applied in patients with myxomatous valve disease. The use of artificial chords is now one of the most basic parts of the repair in many surgeons hands. Achieving correct height adjustment of the prolapsing leaflet segment can often be challenging, leading to introduction of many different techniques to use these chords. A common problem in most of these techniques is leaving heavy Gortex knots on the atrial or ventricular side of the leaflet edges, causing minor coaptation defects and also misleading the echocardiographers post-operatively. We have developed a new technique which is used to adjust the proper length for the chords without leaving any knots on the cusps.
METHODS: The technique has been used by minimally invasive surgery in 21 patients in the year 2011 among 64 other minimally invasive surgeries. The artificial chords are first fixed to the cusp edges in a figure of 8 locked fashion. The two free limbs of the sutures are then passed through the papillary muscle and tied over Teflon pledgets while the surgeon has put the cusp edge at the level of the annulus to have the proper length of the chords. A Liga clip which is put on the chords before the ties prevents over-correction of the repair. Some other procedures which were done in conjunction included triangular and quadrangular resections,hair cut trimming and sliding plasty.
RESULTS: The repair result was satisfactory in all patients with only trivial regurgitation in 3 patients.The smooth coaptation surface was appreciable during echocardiography. No related complication ocurred in any patient.
CONCLUSIONS: This technique can be used as a simple and re-producible technique for insertion of artificial chords. The video film will show the detailed technique in a few patients in combination with different adjunct procedures.

VP-016 THE SURGICAL VIDEO PRESENTATION OF 'POSTERIOR- ANTERİOR CHORDAL TRANSFER AND SLIDING ANNULOPLASTY TECHNIQUE' PERFORMED IN BOVINE HEART MODEL IN HOME ALONE IN MITRAL VALVE REPAIR TRAINING

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[3]Department of Cardiology, Gulhane Military Medical Academy, Ankara, Turkey

OBJECTIVE: The importance of surgical simulation has been increasing quickly in modern surgical training. Prior to operating in human hearts, practice in appropriate experimental models is necessary to reach an adequate experience. We present the surgical video, being 'posterior- anterior chordal transfer and sliding annuloplasty technique' which was performed in bovine heart model.
METHODS: The aorta was closed with a running 3-0 silk suture to prevent leakage from aortic valve during the saline test after mitral valve repair procedure, and atrial retractors were fixed to the left atrial wall with three or four simple sutures. Afterwards, primary chords of A2 scallop were cut to create lesion, then mitral valve apparatus was examined again with saline test. The prolapsing segment of anterior leaflet, causing regurgitation, can be easily distinguished. The prolapsing segment of A2 scallop was marked with two stay sutures. Then primary chords of P2 scallop to be transferred, were marked with two stay sutures also. Subsequently, primary chords of P2 were sewn to the A2 scallop. Then, the remnant of P2 scallop was resected, and P1 and P3 scallops were detached from the posterior annulus. It can be easily seen that there were two indentations. The first one is between P1 and P2 remnant. The second one is between P2 remnant and P3 scallop. Both indentations were closed with interrupted sutures and the gap which was previously created by performing quadrangular resection was closed with interrupted sutures. It was analyzed that there were not enough posterior leaflet tissue and it was decided to perform patch augmentation. After completing augmentation saline test was performed again. It can be distinguished that there was not any regurgitation. Afterwards, ink test was performed to be measured the coaptation depth. It was about 10 mm between anterior and posterior leaflet.
RESULTS: By focusing on components of surgical technique by using partial-task trainers and practice outside the operating room, surgeons can improve their basic technical skills and thus maximize their clinical experience in newly performed techniques.
CONCLUSIONS: Mitral valve repair techniques can be performed and experimented in animal heart models in home alone.

VP-017 INITIAL EXPERIENCE WITH THE JETSTREAM™ PATHWAY DEVICE FOR FEMORO-POPLITEAL DISEASE

I. Javed
Arizona Heart Institute, Phoenix, AZ, United States of America.

OBJECTIVE: To report safety and efficacy of Jetstream™ Pathway rotational atherectomy/ thrombectomy device for the treatment of femoro-popliteal arterial lesions with special emphasis on rate of re-intervention and intervention free period.
METHODS: Duration of study is from Mar 2008 to Nov 2009 (21Months). Total numbers of patients is 86. Males are 55(64%) & Females are 31(36%). Age range is 36 to 87 Years. All patients underwent Pathway Atherectomy during this time period

regardless of their previous status were included. Re intervention in the same limb after atherectomy was endpoint of the study.
RESULTS: TLR (Target Lesion Revascularization) was 15% in patients during follow up period. Re intervention was more common in first 3 months after first intervention. It was more common in TASC II type B lesions and mostly managed by Balloon Angioplasty.
CONCLUSIONS: The JetStream™ Pathway device with thrombectomy and aspiration capabilities has added advantages to femoro-popliteal atherectomy. Adjunctive stenting remains very low in this difficult segment. Long term follow up will definitely be needed for durability and patency.

VP-018 PEDICAL VEIN GRAFT WITH NO TOUCH TECHNIQUE

A. H. M. Lutful Kabir
Apollo Hospitals Dhaka

OBJECTIVE: To attain a near ideal conduit for CABG
METHODS: Harvesting Saphenous Vein with Non-Touch technique, preserving its privascular muffler of tissues as well minimizing ischemic time.
RESULTS:to compare its patency with arterial grafts
CONCLUSIONS: Harvesting Saphenous Vein with Non-Touch technique, preserving its privascular muffler of tissues as well minimizing ischemic time will be as good as IMA

VP-023 LEFT ATRIAL LEIMYOSARCOMA EXTENDING INTO POSTERIOR MEDIASTINUM MIMICKING LEFT ATRIAL MYXOMA

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[1]Bagcilar Egitim ve Arastirma Hastanesi, Kalp ve Damar Cerrahisi, Istanbul; Turkey
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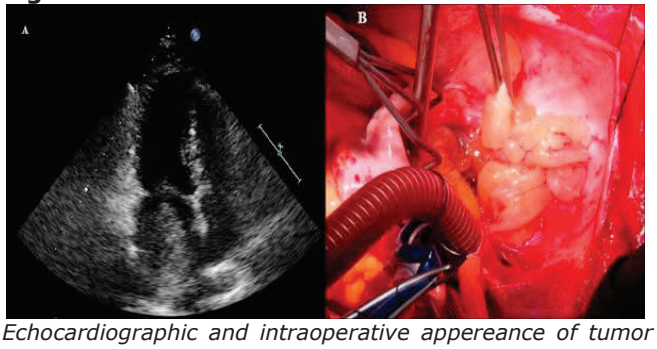
OBJECTIVE: Primary intracardiac malignancies are extremely rare and are hard to detect preoperatively as they mimic myxoma on cardiac imaging. We present a 48 year old female with symptoms of dyspnea and orthopnea, who was diagnosed primarily with left atrial myxoma obstructing mitral valve and an emergency surgery was undertaken because of high possibility of cardiac arrest.
METHODS: Operation was performed thorugh median sternotomy on cardiopulmonary bypass. One large mass (5x6cm) was found to be attached to left atrial posterior wall between right and left superior pulmonary veins (Figure1). There were multiple smaller tumoral infiltrations in the whole endocardial lining of the left atrium and a second large mass (3x4cm) on the posterior leaflet of the mitral valve. Endocardial infiltrations were extending through the left superior pulmonary vein. Thickened and infiltrated left atrial endocardium, where the underlying myocardium of the left atrial wall showed no evidence of invasion, was peeled completely with the mass on the mitral valve.
Intraoperative suspicion of sarcoma, related to gross examination of the tumor masses present both on the atrial wall and the posterior leaflet of the mitral valve and endocardial infiltration of the tumor, was proved by histopathological diagnosis of leiomyosarcoma. Further cardiac magnetic resonance imaging studies revealed a posterior mediastinal mass involving pulmonary veins.
RESULTS: Patient was discharged from the hospital on the twelfth postoperative day after an uneventful recovery. Further chemotherapy treatment with doxorubicin, ifosfamide, uromitexan was given. In 18 months of follow-up, she is free of cardiac recurrence and the mass in the posterior mediastinum has been downsized.
CONCLUSIONS: Possibility of a malignant nature of intracardiac masses should be suspected in middle aged patients and extent of the tumor must be determined to establish proper surgical strategy for complete resection of the tumor which is the only chance of successful treatment for this lethal disease entity.

Figur



Echocardiographic and intraoperative appereance of tumor

March 2, 2012 / 08:30–10:00 CARDIOVASCULAR RISK: FROM BENCH TO BEDSIDE – POSTER DISCUSSIONS

PP-004 THE RELATIONSHIP BETWEEN THE ALCOHOL USE AND METABOLIC SYNDROME IN TURKISH ADULTS

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OBJECTIVE: In our study, we aimed to examine the relationship between the amount and frequency of alcohol use and metabolic syndrome (MS) in Turkish adults
METHODS:A total of 2298 subjects (1424 female) with a mean age of 50±15 were evaluated. MS defined by MS criterias of TEKHARF study. The frequency of alcohol use was classified as every day, once per week, once per month and once per year. Amount of use was determined as cc.
RESULTS:110 (% 5) of the total subjects were using alcohol and there was MS in 35 (32%) of them (p: 0.68). The relationship between the amount of alcohol use and MS was assessed with the Mann-Whitney U test and it is shown in Table 1.
CONCLUSIONS: There was no association between the amount and frequency of alcohol use and development of MS.

Relationship between the amount and frequency of alcohol use and MS

	MS GROUP (N)	CONTROL GROUP (N)	P value
Frequency of alcohol use			
Everyday	10	16	NS
Once per week	13	33	NS
Once per month	10	18	NS
Once per year	2	8	NS
Amount of alcohol use (cc)	632±487	857±984	NS

PP-009 ROLE OF ETHYL PYRUVATE IN REMOTE ORGAN INJURY IN AN EXPERIMENTAL MODEL OF RUPTURED ABDOMINAL AORTIC ANEURYSM

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[2]Department of Biochemistry, KTU Faculty of Medicine, Trabzon, Turkey
[3]Department of Histology, KTU Faculty of Medicine, Trabzon, Turkey

OBJECTIVE: Ruptured abdominal aortic aneurysm (RAAA) is associated with a systemic inflammatory response syndrome and multiple organ dysfunction. The purpose of this study is to evaluate the effect of ethyl pyruvate (EP), which is a potent antienflammatory and antioxidant agent on lung and kidney injury in rats by creating an experimental model RAAA.
METHODS: Thirty male Spraque-Dawley anaesthetized rats were randomized to sham (Sham n:6) (Sham+EP n:6) or shock and ischemia/reperfusion (SIR) groups (SIR n: 9) (SIR+EP n: 9). Carotid artery and jugular vein canulation, laparotomy and aortic exploration were performed in all groups. In SIR and SIR+ EP groups hemorragic shock was developed by drawing blood during one hour as to keep average arterial pressure at 50mmHg, then ischemia was developed by clamping the abdominal aorta in two locations above the supramesenteric and iliac bifurcation. After 1 hour, SIR group was given 1 ml saline and SIR+EP group was given 40mg/ kg EP then aortic clamps opened and allow for 2 h reperfusion. The blood which was drawn in order to develop hemorrhagic shock was given back during the ischemic process. At the and of the reperfusion process, euthanasia was performed by drawing blood and serum malondialdehytde (MDA), myeloperoxydase (MPO), tumor necrosis factor (TNFα), interleukin-6 (IL6), ischemia modified albumin (IMA) and blood gases were taken for examination. The left lung and kidney were removed and MDA, MPO and histological examination were performed in lung and kidney tissues.
RESULTS: An increase was observed in all parameters except IL-6 in the SIR group in comparison to sham groups. In SIR+ EP group the serum and tissue MPO, MDA and TNFa values were decreased significantly ($p<0.016$). In SIR group serum IMA values were increased significantly when compared with sham groups whereas in the SIR+EP group was not decreased significantly among the groups ($p>0.016$). Blood gas anaylsis did not differ significantly between the groups ($p>0.016$). In SIR+EP group histological injury scores were decreased significantly when compared SIR group ($p<0.016$) in lung and kidney tissues.
CONCLUSIONS: These results indicate that ethyl pyruvate may reduce remote organ injury due to shock and ischemia/reperfusion in an experimental model of RAAA.

March 2, 2012 / 10:30-12:00 LIVELY DISCUSSIONS IN CARDIAC IMAGING AND CARDIAC ARRYTHMIAS – POSTER DISCUSSIONS

PP-025 HUGE LEFT ATRIAL MYXOMA APPLYING WITH SYMPTOM OF COUGH ONLY: CASE REPORT

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OBJECTIVE: Cardiac myxoma is the most frequently seen primary cardiac tumor which unusually reaches giant sizes and usually causes severe sypmtoms and sudden death. This report describes the case of a 53 year old man who was complaining just with cough which was resistant to treatment and he got diagnosis of left atrial myxoma after 2D echocardiographic examination. Despite of being huge and prolapsing through the mitral valve, patient had no other symptoms related to hemodynamic effects of obstruction, embolic events or systemic manifestations which may mimic collagen disease. That huge mass was removed by urgent operation and the diagnosis of myxoma was confirmed by histopathologic study. Patient discharged at seventh day of operation and no recurrence observed with echocardiographic follow up for one year

PP-032 SUDDEN UNILATERAL VISION LOSS DUE TO CALCIFIED AMORPHOUS TUMOR OF THE LEFT VENTRICLE - A CASE REPORT

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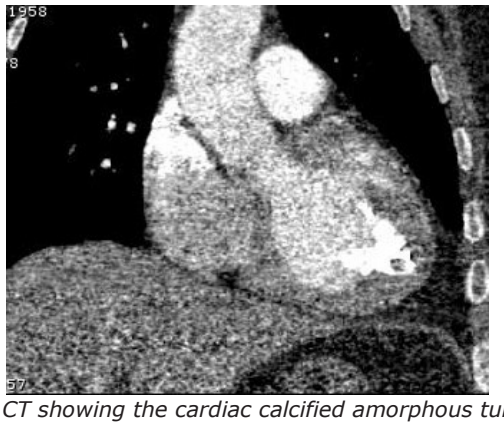
OBJECTIVE: The calcified amorphous tumor (CAT) of

the heart is a very rare non-neoplastic cardiac intracavitary mass composed of calcium deposits in a background of amorphous degenerating fibrinous material. It was first described in 1997 by Reynolds and colleagues. Since then, very few cases have been reported in English literature.
Pathogenesis of cardiac CAT has been linked to organise thrombi, but its precise etiology is unknown. Their clinical manifestation, and treatments are still unclear. Cardiac CATs occur in all chambers of the heart. The clinical presentation depends on the site and size of the masses and it include progressive dyspnea, chest pain, syncope, pulmonary or systemic embolism. In the present report, we describe a case of with a cardiac CAT who was successfully treated by surgery and causing irreversibl unilateral vision loss.
METHODS:A 54-year-old woman was admitted to the local physician with sudden unilateral vision loss in her left eye 7 days ago. The patient was referred to our hospital. Left central retinal arterial occlusion was detected and special investigation was performed in order to identify the source of emboli. Left central retinal arterial occlusion was detected and special investigation was performed in order to identify the source of emboli. The physical examination was normal apart from vision loss. Laboratory tests, including thrombotic and autoimmunological parameters, were within normal limits. The carotid and vertebral duplex ultrasound was unremarkable. Brain magnetic resonance imaging also showed no significant findings. Transthoracic echocardiography revealed a pedunculated mobile hyperechoic calcified mass originating from the calcified left ventricle apex. The anticoagulant therapy was started. A computed tomographic scan revealed heavily calcified mass in the apex of the left ventricle.
RESULTS: Surgical treatment was performed on cardiopulmonary bypass with cold cardioplegia. The large craggy fragile mass was excised as multiple pieces through left ventriculotomy. The patient had no perioperative complications and no further embolic events. The pathologic examination showed extensive calcification in a fibrinous background. No myxomatous tissue was seen and a final diagnosis of calcified amorphous tumor of the heart was rendered.
CONCLUSIONS: Mobile CATs clearly indicate an impending risk of stroke or other systemic embolic events. Immediate anticoagulation therapy should be started whenever a mobile tumor is detected. Surgical excision is the ideal treatment, especially for larger mass or those that are symptomatic. Since clinico-radiologic differentiation from other cardiac masses is not possible in most cases, surgical excision and histopathological examination is the only modality for definitive diagnosis.



CT showing the cardiac calcified amorphous tumor.

PP-033 ANALYSIS OF HEART RATE VARIABILITY IN POSTTRAUMATIC STRESS DISORDER PATIENTS IN RESPONSE TO A TRAUMA-RELATED REMINDER

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OBJECTIVE: Posttraumatic stress disorder (PTSD), formally defined in early 1980s, is a mental disorder developing after a traumatic event and is characterized by intrusive recollections of the event, avoidance of event-related stimuli, and hyperarousal including irritability, startle response, and sleep disturbance. Previous studies further support the hypothesis shift in ANS balance towards sympathetic tone with repression of parasympathetic activitiy.
METHODS: Standardized heart rate analyses was carried out in 27 PTSD patients, all men, ages between 22-45 years (median 29 years), all fulfilling DSM-IV diagnostic criteria for PTSD. The normal control group comprised 23 healthy volunteers matched for age, sex, marrital and smoking status.
Following a 2 hour-long resting ECG recording, 120 slide films related to traumatic event were presented for 6 minutes. Holter recording carried on for another 2 hours. Participants' stationary and continous anxiety levels were assessed by STAI-I scale before and after exposure to the stressor.
Analyses were made by computing time dependent HRV changes (SDNN, SDANN, SDNN index, RMSSD, pNN50, NN50 Count ve HRV Triangular index) with Rozinn RZ 152 software.
RESULTS: In PTSD group disease severity indexes are higher as compared to control group. Intra group variation is low with a homogenous distrubition. Patient populatiom demonstrated severe PTSD signs.
Heart rate variability analyses of PTSD patients and healty voluenteers demonstrated significant differences in ANS modulation among groups. Following slide presentation RMSSD, NN50 count and pNN50 parameters increased in control group indicating a parasympathetic activation in contrast to a decline in sympathetic activity represented by SDANN. Overall neurocardiac input as assesed by SDNN parameter also diminished, reflecting a parasympathetic dominancy.

In PTSD group after slide show, increases in SDNN and SDANN, and decreases in RMSSD and pNN50 parameters bring out sympathetic system as the predominant tone.. Decrease in HRV parameters of parasympathetic activity (RMSSD and pNN50) indicates a defect in prefrontal inhibitory mechanisms acting on subcortical structures i.e amygdala. Due to decrease in parasympathetic activity and accompanying increase in sympathetic activity HRV found to be decreased in patient population.
CONCLUSIONS: Exposure to a stressor eventuates in parasympathetic activation among healthy people evident by increases in RMSSD, NN50 Count and pNN50 parameters. SDANN and SDNN decreases reflect parasympathetic predominancy over sympathetic tone. HRV increases as a result of this inverse changes. But PTSD patients respond stressors with increases in SDNN and SDANN. Concomitant decrease in RMSSD and pNN50 parameters indicates parasympathetic deficiency with a resultant sympathetic predominancy.

PP-034 LASER MICROSTRUCTURED POLYMERIC SCAFFOLDS FOR HEART TISSUE ENGINEERING

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OBJECTIVE: To manufacture artificial tissue based on seeding autologous stem or progenitor cells on the laser microstructured different origin polymeric scaffolds and to evaluate their biocompatibility.
METHODS:A femtosecond laser multiphoton polymerization (FLMP) technique was used to obtain scaffolds from hybrid organic–inorganic photopolymer ORMOCER (ormocore b59), hybrid organic–inorganic Zr-containing sol-gel material ORMOSIL (organicaly modified silica, SZ2080), acrylate-based material AKRE (tris [2-hydroxy ethyl]isocyanuratetriacrylate) and biodegradable polyethylene glycol di-acrylate (PEG-DA-258). PDMS was used for stamping. Adult myogenic cells derived from rabbit muscle or endothelial cells from rat aorta were used for the biocompatibility studies in vitro. Adhesion and proliferation of myogenic and endothelial progenitor cells were examined by using a shaking and MTT assay, respectively. For the viability test, the acridine orange/ethidium bromide dye mixture was used. Fabricated patches were implantated into the organism of laboratory animals (rats or rabbits).
RESULTS: The artificial polymeric scaffolds mimicking the 3D structure of native tissue were produced. The adhesion, proliferation and viability tests have shown that artificial tissue fabricated from polymerized microporous ORMOCORE b59, PEG-DA-258, PDMS and SZ2080 scaffolds were an acceptable environment for tested cells. Meanwhile, the AKRE was apparently a less attractive surface for stem cells than glass or polystyrene. The same results were obtained after implantation of artificial scaffolds into laboratory animals (rats or rabbits).
CONCLUSIONS: Femtosecond laser multiphoton polymerization microstructured polymeric scaffolds fabricated from hybrid organic–inorganic photopolymers ORMOCER and ORMOSIL, as well as biodegradable PEG-DA-258, represent important building materials for tissue engineering, especially, for reconstruction of injured myocardium.

March 2, 2012 / 15:30-17:00 CARDIVASCULAR SURGEON'S AND CARDIOLOGIST'S COLLABORATION: CONTROVERSIES IN INTERVENTIONAL CARDIOLOGY & CARDIOVASCULAR SURGERY – POSTER DISCUSSIONS

PP-055 BILATERAL CAROTID ENDARTERECTOMY AND CORONARY BYPASS: STAGED APPROACH

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OBJECTIVE: There has been continuous debate in terms of priority of intervention in Bilateral Carotid Disease and Coronary Bypass Surgery.Even though majority of authors consider that Carotid surgery should come first, there is still ongoing doubt relating the sequence of surgery.
METHODS: Bilateral Carotid Artery Disease and Triple coronary vessel Disase were detected in a 56 years old female patient admitted to Cardiac surgery clinic due to stable angina pectoris.There were uncontrolled type 2 Diabetes Mellitus, hypertension, hyperlipidemia and morbid obesity. There was Transient Ischemic attack in history 6 months ago and she was heavy smoker.The patient had 80 % occclusion in left carotid and 75% in right carotid artery. First, left carotid artery endarterectomy and primary repair without using shunt and patch was accomplished(Cross Clamp time (CC) 14 minute) under general anesthesia with opportunity of ECG,invasive artery pressure,respiratory rate and Oxygen saturation monitoring.2 hours later,she was extubated with no problem and was given clopidogrel, salicylic acid and enoxaparin.Right carotid endarterectomy and primary repair was applied with exactly the same strategy tomorrow.(CC 12 minute). She was extubated hours later without problem.Triple vessel bypass surgery was executed by using ECC and Cross Clamp one day later.
RESULTS: Stroke or any other major complication not occured during postoperative period and she was discharged seven days later.

CONCLUSIONS: Stroke is one of the most frightening complications after cardiac surgery.It profoundly influences the results of surgery.It also brings heavy burden economically.Both the nature of operations and the risk factors in two diseases are the same, Stroke and Cardiac Surgery are inseperable.Every effort should be made in order to wellness of patinet and relatives,success of surgery team and minimizing the risk of stroke for lowering expenditures.
Combined surgery in one session was not preferred due to patient's present risk factors and high risk mortality and morbidity of combined one shot surgery. There are a lot of articles claiming that carotid surgery must be performed before coronary bypass surgery.We performed left carotid surgery first due to lesion was more serious than that of right carotid one.Since bilateral carotid surgery at one time is so risky,we favoured surgery different times.Other side for carotid surgery was done the day after.There was no neurologic complication observed.Coronary lesions were also serious for this reason before discharged he was operated on the day after.Backflow was good enough and in order to avoid shunt complications itself,that is why it wasnt used during operations.

PP-056 COMPARISON OF LEFT AND RIGHT INTERNAL THORACIC ARTERY GRAFTS FOR CIRCUMFLEX CORONARY ARTERY SYSTEM REVASCULARIZATION

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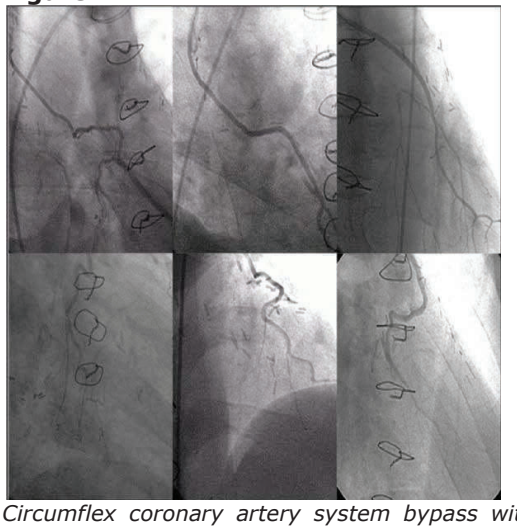
OBJECTIVE: In this study, the usages of right internal thoracic artery (RITA) through transverse sinus (TS) and left internal thoracic artery (LITA) during bypass grafting of circumflex (Cx) coronary artery system are compared.
METHODS:A study between May 1988 – March 1999 was held in 2 groups; first group with 24 patients with bypass RITA-Cx through TS and second group of 64 patients with bypass LITA-Cx. Between the two groups, the study evaluated the peroperative and postoperative characteristics, early stage morbidity and complications, angiographic graft patency rate by using student's t and Chi square test.
RESULTS: Aortic clamp time was 80.76 minutes in the first group, 69.17 minutes in the second group and it made sense (p=0.044). In both groups, there was a significant difference (p=0.018 and p=0.047 respectively) for the duration of stay in the surgical intensive care unit and in hospital (more than 2 days and 10 days respectively) Control coronary angiography was performed on 45.8% patients of group 1 and 40.6% patients of group 2 in the early, middle and late stages. As a result, graft occlusion occurred in 3 patients of group 1 and in 4 patients of group 2.
CONCLUSIONS: Within the different approaches of the surgical teams, if full arterial revascularization will be performed on the left coronary system, besides LITA-LAD anastomosis, RITA usage through TS could be a good alternative for revascularization of Cx system, depending on surgeon's preference. However, the disadvantages must be considered. The bypass grafting of LITA to Cx system considered as a good alternative. In this case, with RITA-LAD combination, long term solutions are in acceptable levels.

Figure



Circumflex coronary artery system bypass with RITA and LITA grafts

PP-061 RESULTS OF SURGICAL TREATMENT OF INFRARENAL ABDOMİNAL AORTIC ANEURYSM: 24-YEAR EXPERIENCE

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OBJECTIVE: Abdominal aortic aneurysm (AAA) is the most common type of true aneurysm. The incidence increase in elderly patients progressively. Untreated patients have a high risk of morbidity and mortality. In this study; it is aimed for to evaluate the results of patients operated due to infrarenal aortic aneurysm in our clinic.
METHODS: Between 1987-2011; 153 patients underwent surgery with the diagnosis of abdominal aortic aneurysms in our Cardiovascular Surgery Clinic. Patients who were underwent endovascular aneurysm repair (EVAR) were excluded. Patients were evaluated for age, gender, concomitant diseases, diagnostic methods, the localization and size of aneurysm, surgical method and morbidity-mortality rates retrospectively.
RESULTS: The average age of patients was 69.5 (30-88). 119 patients were male and 34 patients were female. There were infrarenal aortic involvement in seventy-three patients, both the aorta and iliac artery involvement in eighty patients. The mean diameter of aneurysms was 6,5 (5-12,5) centimeters. The most commonly used diagnostic methods in patients were computed tomography (CT) and ultrasonography. The most frequent concomitant diseases were hypertension, chronic obstructive pulmonary disease and coronary artery disease. Seventy patients were operated in emergency conditions due to rupture. Eighty-three patients were operated in elective conditions. Tube graft interposition were performed in sixty-eight patients, aortobiiliac bypass were performed in thirty-six

patients, aortobifemoral bypass were performed in forty patients, aortouniiliac bypass were performed in one patient and axillobifemoral bypass were performed in two patients. Five patients died during exploration. There was neither apparent aneurysm nor rupture in one patient so operation was terminated. Total hospital mortality was 34 (22.2%). Eight (9.6%) of the patients operated in elective conditions and 26 (37%) of the patients operated in emergency conditions were died.
CONCLUSIONS: Abdominal aortic aneurysm is the important cause of mortality due to the risk of rupture in older patients. Patients who are diagnosed in elective conditions can be treated at lower mortality rates. Surgical intervention in patients with ruptured and delayed diagnosis has a very high mortality rates (%30-60). During the routine physical examination and screening tests in patients who over the age of fifty with additional risk factors should be suspected AAA. Patients should be treated without delay with the appropriate methods (Conventional surgery or EVAR).

PP-062 ENDOVASCULAR ANEURYSM REPAIR VS. OPEN SURGERY

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[3]Department Of Anesthesiology, Ankara Medicana International Hospital

OBJECTIVE: Abdominal Aortic Aneurysms(AAA), Thoracic Aortic Aneurysms(TAA) and Thoracoabdominal Aortic Aneurysms(TAAA) are still challenging in terms of therapeutic considerations for both the physicians and patients. Open surgery is an option for all kinds of aortic aneurysms, but does have morbidity and mortality arising to inacceptable rates in some patient groups. Endovascular aneurysm repair (EVAR) is recently introduced as a treatment option compared to open surgery. There is growing data concerning the outcomes, more satisfactory data is present for AAA, but acceptable for TAA and TAAA. Morbidity and mortality rates are lower compared to open surgery. New modified complementary techniques like debranching procedures, elephant trunk completion and synchronous caroticosubclavian bypass procedures are also being carried out.
METHODS: Between December 2008 and October 2011, 25 AAA patients were treated either with endovascular aneurysm repair (EVAR) (n:15, 60%) or open surgery (n:10, 40%). 4 cases of TAA&TAAA were treated with thoracic endovascular aneurysm repair (TEVAR). Medtronic Vailant grafts for TAA and Medtronic Endurant grafts for AAA were used. In open surgery group dacron vascular grafts were used.
RESULTS: In EVAR group 12 patients (80%), in TEVAR group 2 patients(50%) and in open surgery group 9 patients (90%) were male. The mean age of the patients was 70,87±8,11 in EVAR; 58,25±8,05 in TEVAR and 69,70±5,92 in open surgery groups. There was no diffirence between groups with regards to age, history of diabetes mellitus, hypertension, hyperlipidemia, peripheral arterial disease, stroke, chronic obstructive pulmonary disease, coronary artery disease with or without coronary intervention, atrial fibrillation and chronic renal failure ($p<0,05$, chi-square test). General anesthesia was employed for all TEVAR and open surgery patients. For 60% of EVAR patients (n:9) regional anesthesia were used. For EVAR, TEVAR and open surgery groups postoperative intensive care unit stay was 22±19, 42±51 and 29±17 hours ($p>0,05$, Kruskal Wallis Test) respectively. Postoperative length of stay was 2,6±1,05 days for EVAR, 3,5±1 for TEVAR and 6,6±2,98 days for open surgery groups ($p<0,05$, Kruskal Wallis Test). Type 1 endoleak was detected intraoperatively in two patients treated with EVAR and eliminated via stent implantation. One case of EVAR and one case of TEVAR was reoperated for femoral lymphocele formation with local anesthesia.
CONCLUSIONS: Endovascular aneurysm repair techniques for both AAA and TAA/TAAA are being effectively employed. Compared to surgery the mid-term results are acceptable with lower morbidity and mortality.

PP-063
EFFECTS OF PERIOPERATIVE PREDICTORS ON CLINICAL OUTCOME IN EARLY AND LATE ICU DISCHARGE AFTER CORONARY ARTERY BYPASS SURGERY

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OBJECTIVE: In coronary artery bypass surgery patients length of stay (LOS) in intensive care unit (ICU) has an important role in complication rates and costs. For that reason the discharging of the patients from the hospital in shorter period can be provided by taking measures prior to surgical intervention via previously known factors which may affect hospitalization stay. The aim of this study was to determine the role of perioperative risk factors in clinical outcome based on the time of ICU discharge.
METHODS: In this retrospective study of 196 patients undergoing coronary artery bypass greft (CABG) surgery in our clinic, were divided into early (<=2 day) and late (>2 day) ICU discharge groups according to the duration of ICU stay. The preoperative, intraoperative and postoperative risk factors, the complications and the outcome were evaluated.
RESULTS: Age, sex, hyperlipidemia, diabetes mellitus, previous myocardial infarction, renal failure, cerebrovascular accident, hypertension, level of hematocrit and creatinine were not significantly different between the two groups. Patients with hemodynamic instability, respiratory dysfunction, ejection fraction <35%, inotrope administration, left main coronary artery disease, use of intraaortic

balloon pump and arrhythmia had significantly higher mortality and longer ICU stay (> 2 day) compared to other group ($p < 0.05$). The shorter duration of intubation time was the most significant factor affecting early discharge according to late discharge group (7.8 ± 3.8 vs 17 ± 9.9 hours, $p < 0.001$).
CONCLUSIONS: Time of ICU discharge depends on especially to respiratory dysfunction and duration of intubation. Therefore, we assume that preoperative modification of respiratory risk factors may improve clinical outcome on ICU.

PP-064 TOTAL ATELECTHESIA RESEMBLİNG PNEUMOTHORAX AFTER CARDIAC TRANSPLANTATION

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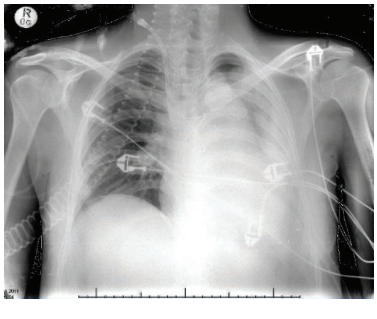
OBJECTIVE: Paracardiac atelectasis of the entire lung may be present after major cardiac operations. Radiographic findings are similar to total pnemothorax. Differential diagnosis with plain chest X-ray examination may be difficult. Persisting collapse of the lung after tube thoracostomy is an important indicator of bronchial obstruction.
METHODS: Total collapse of the left lung has been detected on daily chest X-ray examinations of a 34 year old male cardiac transplantation recipient. He was extubated and in well condition. Our initial diagnosis was total pneumothrax on left side and tube thoracostomy was performed, but the collapse was persisting in control posterioanterior chest radiograph. He was electively intubated and flexible bronchosopy was performed. Mucoid material was aspirated from the left main bronchus and the left lung was insufflated. The expansion of the lung was visualized after bronchoscopy and he was extubated.
RESULTS: Mucoid material was aspirated from the left main bronchus and the left lung was insufflated. The expansion of the lung was visualized after bronchoscopy and he was extubated.
CONCLUSIONS: Paracardiac atelectasis of an entire lung may be present after major cardiac surgery, even in adult patients. Inadequate respiratory effort of the patients and increased mucoid secretion are resulting obstruction of major airways. The findings on physical examination and radiographies are similar to pneumothorax. Chest tube thoracostomy is not sufficient in those cases to expand the lung, where a flexible bronchoscopic examianation is necessary to aspirate the mucoid material.
Total collapse of the left lung



PP-065 SURGICAL STRATEGY FOR SUPRADIAFRAGMATIC VASCULAR INVASION OF RENAL CELL CARCINOMA

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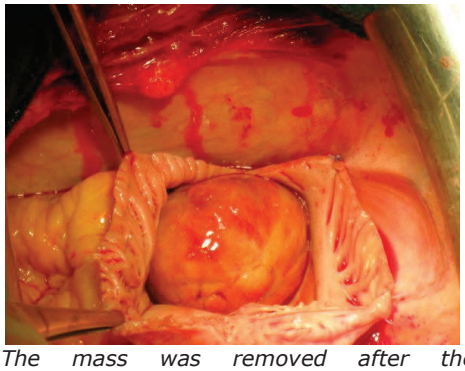
OBJECTIVE: Supradiafragmatic vascular invasion of the renal cell carcinoma (RCC) is a rare (10–25%) condition mostly requires difficult and extended surgical approach due to the nature of the tumor. Supradiafragmatic invasion is described as dispersement above the hepatic veins up to the right atrium or even into the right ventricle and pulmonary artery.
METHODS: We assess our experience with two different RCC cases in both perspective. One required no cardiopulmonary bypass however the other case total circulatory arrest was achieved immidiately. The first patient was 56 year old female patient who admitted to emergency department with abdominal distension and with a history of pulmonary embolism two times within last 4 weeks. Abdominal computed tomography revealed renal tumor 16.6cm in diameter with invasion of renal vein and inferior caval vein (Level II). After inferior caval vein filter placement the patient underwent radical nephrectomy with inferior caval reconstruction. Selective jugular and femoral cannulation sites are prepared for an emergent initiation of cardiopulmonary bypass. But there was no requirement for it. In the second patient who underwent radical nephrectomy 1 year ago, routine magnetic resonance imaging showed inferior caval invasion (Level IV) with a mass filling %80 of the right atrium. Via median sternotomy, cardiopulmonary bypass was initiated with standart aortic, superior caval and right femoral venous canulation. After right atriotomy the mass was removed(Figure 1). After the removal of the mass, a short period of total circulatory arrest was achieved for reconstruction of inferior caval vein following the complete excision of the tumor from the level of diaphragma to the hepatic veins.
RESULTS: Venous tumour invasion is associated with several prognostic factors such as, lymph node metastases, involvement of perinephric tissue and the presence of distant metastases. Surgical planning must be done considering the recurrent nature of the tumor and peroperative requirement of cardiopulmonary bypass or autotransfusion via cell saver circuit.
CONCLUSIONS: In most cases with RCC surgeon must be on alert for any injury to the critical anatomic localizations to prevent excessive blood loss. Appropriate choice for the cannulation sites, preparing and keeping the sites stand by for emergent cannulation are important points should be kept in mind in RCC surgery.

Figure 1 Right atrial invasion of the renal cell carcinoma



The mass was removed after the initiation of cardiopulmonary bypass with standart aortic, superior caval and right femoral venous cannulation.

PP-067 SURGICAL TREATMENT OF AMPLATZER EMBOLUS IN A SECUNDUM ATRIAL SEPTAL DEFECT PATIENT

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OBJECTIVE: Secundum Atrial Septal Defect (ASD) is the most common congenital heart defect affecting 5-10% of children and 30% of adults with congenital heart disease. ASD closure is indicated to prevent right ventricular volume overload due to left-to-right shunting over four years of age and to prevent arrhythmias and right heart failure in later decades.Transcatheter treatment of secundum atrial septal defects is a popular and less invasive alternative to surgery. Hospital stay is shorter and return to work for adults and return to school for children is earlier than with cardiac surgery. Procedural complications like device malposition or embolization, atrial wall erosion, mitral regurgitation, cardiac arrhytmia requiring treatment, sciatic nerve compression due to retroperitoneal hematoma, prolonged time for femoral vein hemostasis, access site hematoma AV fistula formation, pericardial/pleural effusions and transient ischemic attacks were reported.
METHODS:A 38-year-old female was referred to our hospital with the diagnosis of secundum ASD from another hospital. Echocardiography was performed and secundum ASD (Qp/Qs: 2,0), first to second degree mitral regurgitation and first to second degree tricuspid regurgitation was noted. There was mild increase in right ventricular dimensions. Pulmonary artery pressure was measured as 45 mm Hg. Anatomy was found suitable for implantation of ASD occluder device. During catheter closure occluder device was embolized. The patient was heparinized for systemic anticoagulation. It was not possible to retrieve the embolized device by catheterization procedures, and the patient was referred for emergency surgical removal. Surgical intervention was done within forty-five minutes of embolization. ASD was closed with a teflon patch. Right pulmonary arteriotomy was performed proximal to superior vena cava and device was removed. The postoperative course was uneventful, and the patient was discharged on the postoperative 5th day.
RESULTS: The patient was operated in a very short time without any complications. The postoperative course was uneventful.
CONCLUSIONS: Transcatheter device closure of ASDs can lead to serious complications even though this method is advantageous over surgical closure. It should be kept in mind that even if most cases are successful, not only early, but also late complications can occur regardless of the size or type of current devices. Surgical treatment of the complications may be mandatory and should be performed immediately especially in cases of embolisation. Surgery is quite effective in treatment, but it is a fact that operative mortality rises when performed for the complication compared to primary surgical repair.

PP-072 SHORT-TO MIDTERM ASSESSMENT OF THE MYOCARDIAL FUNCTIONS IN PATIENTS WITH TRANSPOSITION OF THE GREAT ARTERIES AFTER ARTERIAL SWITCH

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[2]Department of Cardiovascular Surgery of the Şifa Hospital, İzmir, Turkey.

OBJECTIVE: We aimed to evaluate the systolic and diastolic function of both the left and right ventricules short to midterm after the arterial switch operation using 2D, Doppler and tissue Doppler echocardiography.
METHODS: In this prospectively designed study, 28 patients (20 male, 7 female) who underwent arterial switch operation within a mean period of 42.7 ± 35 months (range 6-168 months) were studied in comparison to 20 age matched healthy subjects.
2-D echocardiography (2-D echo), M-mode echocardiography, Doppler echocardiography tissue doppler imaging (TDI), myocardial performance index of left ventricular (LV) and right ventricular (RV), left atrial volume indices were calculated in both groups. The patients were further separated into subgroups as in the following: groups with and without VSD, with and without coronary anomaly, with and without aortic regurgitation (AR), with and without pulmonic stenosis (PS).
RESULTS: In present study, left ventricular Tei index measured with Pulsed Wav e(PW) doppler and E/Ea ratio of the tricuspid were significantly increased in the patients compared to the control group. On the other hand, the E/A ratio of tricuspid valve measured by PW doppler, the Aa wave measured from mitral lateral anulus and Sa, Ea, Aa waves measured from mitral septal anulus and Sa, Ea, Aa wave measured from tricuspid lateral anulus were significantly decreased in the study group. LA volume index (corrected for body surface), significantly increased and IVRT of lateral mitral anulus was prolonged in the patients with VSD compared to patients without VSD.

CONCLUSIONS: These results of the study showed subclinical impairement of the left ventricular myocardial function and diastolic dysfunction of the right ventricule, the possible mechanisms of which may be attributed to an increase in the afterload of right ventricule and increased pulmonary blood flow. Subclinical dysfunction of the left ventricle is the possible mechanism of which has been stated as injury to the coronary microcirculation was noted especially in patients with VSD at short-to midterm follow-up after the arterial switch operation. Overall, regarding the septal TDI values and LV Tei index following ASO, the left ventricular myocardial function is impaired subclinically. Moreover, right ventricular myocardial involvement as assessed by TDI was stated to be affected independently from the presence of post-operative PS. Prospective studies including larger groups of patients after the ASO are needed for the evaluation of long-term prognosis of coronary and myocardial involvement.

PP-073 A NEW INTERNAL CARDIAC MASSAGE TECHNIQUE

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OBJECTIVE: Classical internal cardiac massage mostly can increase systolic blood pressure to maintain sufficient brain and systemic organ perfusion but diastolic blood pressure commonly remains below 10 mmHg. To be able to increase the diastolic blood pressure sufficiently, the surgeon grabs the distal part of the ascending aorta between the thumb and index finger of the left hand and squeezes it during the diastolic time period to increase the diastolic pressure. Ascending aorta is released during ventricular squeezing, and subsequently ascending aorta is squeezed during the ventricular relaxation.

March 2, 2012 / 17:00-18:30 ADVANCES IN THE DIAGNOSIS AND TREATMENT OF VALVULAR HEART DISEASES – POSTER DISCUSSIONS

PP-075 AORTIC VALVE REPLACEMENT WITH MECHANICAL PROSTHESES IN OCTOGENARIAN

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OBJECTIVE: This study analyzes the long-term outcomes of mechanical aortic valve replacement in octogenarian patients in the current surgical era.
METHODS: A retrospective review was performed on 23 octogenarian patients who underwent mechanical aortic valve replacement. A multivariable model was constructed to determine predictors of hospital mortality, postoperative ICU stay, hospital stay, long-term results. Estimates of the cumulative event rate mortality were calculated by the Kaplan-Meier method.
RESULTS: The mean age of all patients was 82.9±2.3 years, most were men (65.22%). The median ejection fraction was 45%, and 73.91% were in New York Heart Association class III-IV heart failure. Thirteen (56.52%) patients in this study underwent combined procedure; the remaining 10 (43.48%) patients underwent isolated aortic valve replacment. The most common valve size was 23 mm. The mean intensive care unit stay was 1.76±1.14 days. The mean hospital stay was 9.33±5.06 days. No complications were observed in 56.52% patients during their hospital stay. In hospital 7-day mortality was zero and the overall hospital mortality was 8.7%. Follow-up was 100% complete for all 23 hospital survivors at a median of 33 months (range, 1-108 months). Actuarial survival among hospital survivors was 59% at 5 years.
CONCLUSIONS: In the current era, mechanical aortic valve replacement in octogenarian patients is a safe procedure even in cases where combined procedure is performed.

PP-090 COMMISSURAL QUADRANGULAR RESECTION AND SLIDING ANNULOPLASTY TECHNIQUES PERFORMED IN BOVINE HEART MODEL IN HOME ALONE IN MITRAL VALVE REPAIR TRAINING

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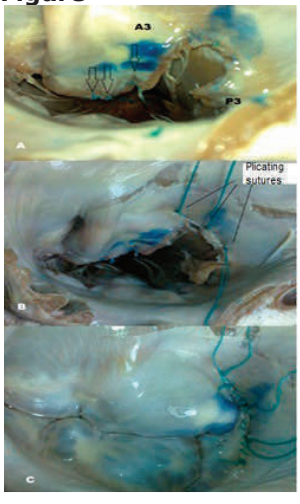
OBJECTIVE: The importance of surgical simulation has grown in the quickly changing climate of modern surgical training. Prior to operating in human hearts, practice in appropriate experimental models is necessary to reach an adequate experience. We have an experience in training our residents to perform mitral valve repair techniques in bovine heart models. In this study, we demonstrate commissural quadrangular resection and sliding annuloplasty in posteromedial commissure.
METHODS: The aorta was closed with a running 3-0 silk suture to prevent leakage from aortic valve during the saline test after mitral valve repair procedure. Mitral valve apparatus was examined beginning from P1 scallop with nerve hooks in order to assess any chordal rupture or elongation. Previously performed surgical technique was triple artificial loop technique in the same heart. (A few primary chords in A2 scallop were cut to create regurgitation, and then they were replaced with a triple artificial chord, known Leipzig Technique. Subsequently, ink test, described by Dr.David ADAMS, was performed to measure coaptation depth). In the second study at the same bovine heart, commissural quadrangular resection was performed in posteromedial commissure, and then A3 and P3 scallops were detached from the annulus.

Subsequently, three transverse plicating sutures were placed to narrow the annulus followed by anterior chordal fixation of secondary chords which were beneath the A3 and P3 free margins. Afterwards commissure was recreated using 'magic suture', described by Dr.Carpentier, and sutured to the annulus with running 4/0 polyester suture.
RESULTS: It can be observed that there was not any regurgitation after saline test. However, there is a little prolapsing segment in A3 scallop. It can be corrected with placing two artificial chords or performing triangular resection.
CONCLUSIONS: Unless we try we cannot learn. Mitral valve repair techniques can be performed and experimented in animal heart models.

Figure



A: A few primary chords in A2 scallop were cut to create regurgitation, and then they were replaced with a triple artificial chord, known Leipzig Technique (arrow) in previous study. commissural quadrangular resection was performed in posteromedial commissure in the next study.
B: A3 and P3 scallops were detached from the annulus. Subsequently, three transverse plicating sutures were placed to narrow the annulus.
C: Anterior chordal fixation of secondary chords which were beneath the A3 and P3 free margins were performed. Commissure was recreated using 'magic suture' It can be observed that there was not any regurgitation after saline test.However, there is a little prolapsing segment in A3 scallop. It can be corrected with placing two artificial chords or performing triangular resection.

PP-091 SEVERE HEMOLYSIS AFTER MITRAL VALVE REPAIR WITH ANNULOPLASTY RING

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OBJECTIVE: Intravascular hemolysis following mitral valve repair is known to be a rare complication. Hemolysis is associated with the localization and the degree of the mitral regurgitant flow, the relation of the regurgitant flow and the mitral ring, and the epithelization status of the mitral ring. When detected, reoperation is the only choice of treatment. Following repair, mild central regurgitation can be detected in many patients, but severe hemolysis is very rare. The distribution patterns of the regurgitant flow and the contact of the regurgitant flow with the ring are responsible for the hemolysis. Early echocardiographic recognition of these flow patterns is important to diagnose the condition.
METHODS: We performed mitral valve repair with anuloplasty ring alone and with other procedures in 49 patients in last 3 years.Two of the patients receiving rings (4.08%) however developed intractable and severe hemolytic anemia quickly in 1 month due to recurrent or residual mild to moderate mitral regurgitation. The diagnosis of hemolysis was made by elevation serum bilirubin levels, elevation of serum lactate dehydrogenase, decreased hemoglobin levels (below 6 mg/dl) and serum haptoglobin. No other causes of anaemia or hemolysis were identified. Red cell transfusions were required in all patients before reoperation. The interval between initial mitral valve repair and reoperation is one month. All patients were symptomatic and complained of severe fatigability due to anemia. Transesophageal echocardiogram during hemolytic evaluation showed only mild mitral regurgitation in both two patients but also detected this small regurgitant jet struck a non-endothelialized portion of the annuloplasty ring.
RESULTS: Reoperation was performed and the valve was replaced with mechanical prosthesis in both two patients. They are being followed up, with normally functioning mitral prosthesis, and no signs of hemolysis.
CONCLUSIONS: Minor degrees of regurgitation after mitral valve repair can produce hemolytic anaemia which is manifested within the first few postoperative months. Most patients are highly symptomatic because of severe anaemia. The mechanism of red cell destruction is a high velocity eccentric stream of blood impacting on a small area of a non-endothelialized portion of the annuloplasty ring or pledget. Because of that following repair with a prosthetic ring, it is essential to clearly visualize the dynamic flow patterns intraoperatively with transesophageal echocardiography. The most important finding is the contact of the regurgitant flow and the annuloplasty ring. This process retards endothelialization of the ring. These findings may lead the surgeon to revise the repair or to replace the valve.

CORONARY ARTERY DISEASE: UNUSUAL OBSERVATIONS – POSTER PRESENTATIONS

PP-110 SPONTANEOUS CORONARY ARTERY DISSECTION: A CASE REPORT

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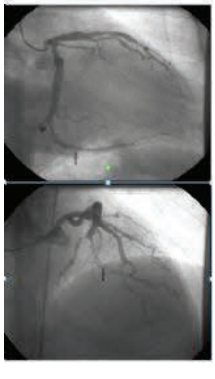
OBJECTIVE: Spontaneous coronary artery dissection (SCAD) is a rare but important cause of acute coronary syndromes. It can cause unstable angina, acute myocardial infarction, and sudden death. In this case, we presented a 54-year-old male patient with SCAD causing acute coranary syndrome.
METHODS:CASE: A 54 year-old male patient with a history of hypertension referred to the hospital for evaluation of chest pain and palpitation. His blood pressure was 110/60 mmHg and heart rate was 95 beats/minute. His skin was cold and sweaty. He had a positive family history for coronary artery disease. He had been smoking a pack of cigarette a day for 20 years. Heart and mediastine were normal on the chest X-ray. Electrocardiography showed sinus rhythm, normal axis and 0.5 mm ST segment

elevation at the DI and aVL. Troponin levels were found to be elevated but CK and CK-MB were normal. A transthoracic echocardiogram revealed left ventricular segmental wall motion abnormality with an ejection fraction of 45% (inferior and posterobasal segments were hypocinetic). The patient underwent coronary angiography. Coronary angiography images revealed SCAD at the distal part of the circumflex artery. The patient is treated only medical therapy including enoxaparin, acetylsalicylic acid, clopidogrel, metoprolol, nitrate and statin.

CONCLUSIONS:SCAD is an uncommon cause of acute coronary syndrome which may be related to lethal condition. The most common conditions associated with SCAD are coronary atherosclerosis and the peripartum period. Patients with SCAD may present with unstable angina, non ST elevation myocardial infarction, ST-elevation myocardial infarction, or congestive heart failure. Occasionally, spontaneous dissection is diagnosed during cardiac catheterization for chronic stable angina or valvular heart disease. The diagnosis of SCAD is usually made by coronary angiography. Treatment options for SCAD include medical therapy, percutaneous coronary intervention, or coronary artery bypass graft surgery. The decision to treat medically or perform percutaneous intervention or surgery must be individualized based on both clinical and angiographic factors. Dissection of large coronary arteries causing persistent ischemia is usually treated with percutaneous intervention or surgery, while dissections of small vessels are treated medically. When there is no evidence of persistent ischemia or hemodynamic instability, medical therapy alone may be utilized. Medical treatment of SCAD is similar to treatment of acute coronary syndromes. The patient is treated only medical therapy because of no chest pain was seen and there is no evidence of persistent ischemia after treatment.

Figure



Coronary angiography images revealeded a spontaneous coronary artery dissection at the distal part of circumflex artery (shown by the arrow).

PP-111 A CASE OF THREE CORONARY ARTERY TO LEFT VENTRICULE FISTULA COEXISTING WITH STABLE ANGINA

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OBJECTIVE:A coronary artery fistulae consists of a communication between a coronary artery and a cardiac chamber, a great artery or the vena cava. Multiple arterio–systemic fistulae, arising from all 3 major coronary arteries and draining into the left ventricle is rare. We here report three coronary artery to left ventricule fistula coexisting with stable angina.

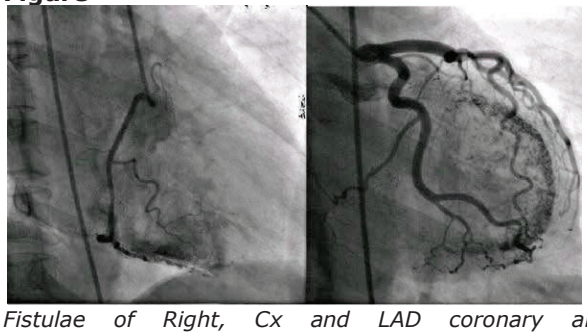
METHODS:A 58 year-old woman presented with complains of progressive dyspnea on effort and also chest discomfort for two months. Her medical history included hypertension but no coronary artery disease, diabetes mellitus hyperlipidemia or smoking. There were no abnormal findings her physical examination. The electrocardiogram displayed normal sinus rhythm; The chest X-ray showed no signs of pulmonary hyperemia or mass lesions, and the central shadow was normal (cardiothoracic ratio=0.40). The transthoracic echocardiography demonstrated with LV diastolic dysfunction and apical hypertrophic cardiomyopathy. Myocardial perfusion scintigraphy showed a massive area of residual ischemia within culprit lesion of the anterior zone starting from the subapical level to the basal cross-section.

RESULTS: The patient therefore underwent cardiac catheterization. There were no atheroma and stenotic lesions on the coronary angiogram; however, a heavy stream of contrast agent entered the left ventricle via an apparent plexus of intramural vessels, from the distal third of both the left and right coronary arterial systems and it did reveal three coronary artery fistula coexistent with stable angina. One fistula originated from the distal septal branch of the left anterior descending artery and the other originated from a distal right ventricular branch of the right coronary artery, circumflex artery and the latter drained into the left ventricle (figure1). She was treated with medically due to starting of symptoms with difficulty effort, no dilatation of four chamber and covered of myocardium by microfistulas. She was discharged with metoprolol and aspirin.

CONCLUSIONS: Multiple coronary–systematic fistulae are a rare cause of myocardial ischemia via the coronary steal phenomenon. The anatomical types of fistulous connections and the severity of leakage vary, and this may alter the myocardial ischemia level and clinical symptoms. Indications for treatment include a large left-to-right shunt, myocardial ischemia, endocarditis, and congestive heart failure. The goal of treatment is to occlude the fistula while providing normal coronary circulation. Percutaneous closure methods including coils,

detachable balloons or alcohol injection and surgical interventions are another treatment ways.

Figure



Fistulae of Right, Cx and LAD coronary arteries

CONGENITAL HEART DEFECTS: CURRENT DIAGNOSTIC AND THERAPEUTIC APPROACHES – POSTER PRESENTATIONS

PP-144 MINIMALLY INVASIVE SURGERY FOR FRACTURED PATENT FORAMEN OVALE OCCLUDER DEVICE

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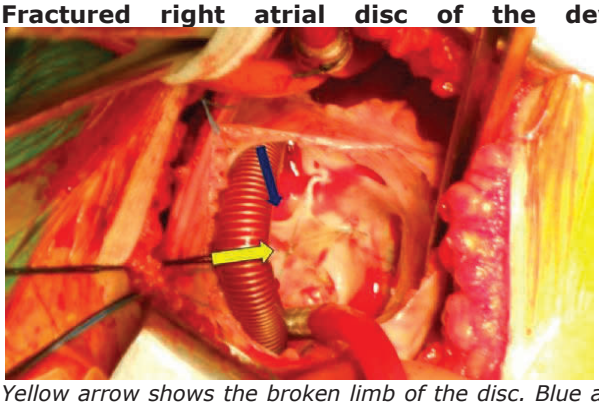
OBJECTIVE: Transcatheter closure of patent foramen ovale (PFO) is a popular approach used in many cardiology departments. Even if the disease is complicated and there is an urgent requirement for surgical repair, minimally invasive facilities can be performed safely.
METHODS: We report the case of a 39 year old female patient who underwent transcatheter PFO closure after she developed acute limb ischemia 1 year ago. Thirty months after the procedure, she admitted to emergency department with severe palpitation and ECG showed frequent supraventricular extrasystoles. Transtorasic echocardiography showed the fracture of right atrial disc of the occluder device. Fractured and hypermobile disc hitting the atrial wall was the probable cause of the sustained supraventricular arrythmia. Via the right mini thoracotomy, and femoral cannulation; the device has been removed with carefull excision throughout the interatrial septum. Atrial septal defect was closed with pericardial patch. She discharged postoperative 4th. day uneventfully.
RESULTS: Although there is a remakable development occured in the transcatheter occluder device technology, fracture of the occluder device remains a rare but serious complication. Device malposition or fracture related complications such as supraventricular arrythmias, tromboembolic events and air embolism are reported (%6-11).
CONCLUSIONS: In the literature long term (over 1 year) complications related with transcatheter closure devices are rarely seen and requirement for the surgery is reported only in a few cases. The transcatheter device technology is stil an ongoing process and carefull follow up of this group of patients is a major concern.

Fractured right atrial disc of the device



Yellow arrow shows the broken limb of the disc. Blue arrow shows the mobile site of the right atrial disc, where the device endothelialization is incomplete.

PP-145 ISOLATED LEFT VENTRICULAR DIVERTICULUM IN A 70-YEAR-OLD FEMALE PATIENT

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OBJECTIVE: Congenital cardiac diverticulum occurs as a result of ventricular wall saccular invagination during embryogenesis. Mostly, they are seen in the left ventricle. In this report, we present a case of isolated left ventricular apical diverticulum that was detected by echocardiography and coronary angiography.
METHODS:CASE: A 70 years-old woman was admitted to our clinic with complaining of atypical chest pain. She had admitted to another clinic with similar complaints ten years before and coronary angiography had revealed normal coronary arteries and normal ventricular systolic function. There was no knowledge about the left ventricular diverticulum in previous coronary angiography report. On her coronary angiography images, left ventricular borders weren't seen well because of the little contrast media which was given possible by hand injection. Blood pressure was 150/80 mmHg and pulse rate was 65 beats/min with regular rhythm. Examination of the other systems were normal. Telecardiography was normal. On her ECG, complete LBBB was detected. Left ventricular ejection fraction was measured as 40% by echocardiography. On the apical 4 chamber view, 2.2x2.4 cm left ventricular apical diverticulum was seen as outward structures that synchronize with left ventricular contractions. The walls of diverticulum had similar width and echo density with the left ventricular walls. Her coronary arteries were normal on coronary angiography. On left anterior oblique view of ventriculography,

2.2x2.4 cm contractile diverticulum was seen in the left ventricular apical segment. 24 hours ECG Holter revealed no arrhythmias. Medical treatment was decided for the patient and by carvedilol 12,5 mg/day, perindopril arginin 5 mg/day and acetyl salicylic acid 100 mg/day were prescribed. Echocardiographic follow-up have revealed no increase in the dimensions of the diverticulum and the patient had no event in three years period.
CONCLUSIONS: Left ventricular diverticulum is a rare congenital anomaly. We presented such a case that had isolated left ventricular muscular diverticulum. Because of no increase in the dimensions and un-complicated course, we decided to follow up the patient with medical treatment.

PP-146 COEXISTENCE OF ATRIAL SEPTAL DEFECT AND PERSISTENT LEFT SUPERIOR VENA CAVA WITH NONCOMPACTION OF THE LEFT VENTRICULAR MYOCARDIUM

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OBJECTIVE: Noncompaction of the left ventricular myocardium (NVM) is a rare cardiac anomaly which can lead to the development of cardiomyopathy. NVM can be isolated or associated with congenital heart anomalies such as ventricular septal defect, atrial septal defect, pulmonic stenosis, bicuspid aortic valve and Ebstein anomaly. NVM usually present with heart failure symptoms, ventricular tachyarrhythmias and thromboembolic events. We reported one case of NVM associated with atrial septal defect and persistent left superior vena cava.
METHODS:A 14-year-old boy was admitted to our clinic with complaints of exertional dyspnea and fatigue. He did not have a family history of heart or other hereditary diseases. He had a history of the operation from atrial septal defect (ASD). On examination, his blood pressure and pulse rate was normal. Grade 3/6 murmur was audible at the apex. Two-dimensional echocardiographic examination demonstrated large coronary sinus at the parasternal long axis and the apical four-chamber views (Figure). The left and right ventricular dimensions and functions were normal. The typical prominent trabeculations and intertrabecular recesses consistent with ventricular noncompaction were also seen on echocardiogram (Figure). Color Doppler examination showed mild mitral regurgitation, severe tricuspid regurgitation with high pulmonary artery pressure (systolic pulmonary artery pressure 45 mmHg). The right atrium and right ventricle were also enlarged and interatrial septum was intact. The left ventricular ejection fraction by M mode and Simpson's method was 50%. The patient was treated with beta-blocker, angiotensin-converting enzyme inhibitor, diuretic and antiagregan therapy.
CONCLUSIONS: Once cardiac anomaly was detected, the physican should investigate other cardiac anomalies.

Figure

The apical four-chamber, the modified apical four-chamber and the parasternal short-axis views

PP-147 POLAND SYNDROME

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OBJECTIVE: Poland syndrome is a congenital syndrome characterized by unilateral partial or total absence of the pectoralis major muscle with variable upper extremity deformities and anterior chest wall malformations. It's three times more common in males than in females. This syndrome may be accompanied by cardiac and other organ anomalies. We present the clinical findings of five patients with Poland syndrome.
METHODS: The clinical findings of 5 patients who presented with complaints of chest deformity and diagnosed with Poland syndrome between June 2009-October 2010 to the outpatient clinic of Thoracic and Cardiovascular Surgery, were reviewed. Routine chest X-ray, respiratory function tests, chest CT and echocardiography, neurological exam, electromyography were performed to the patients in whom the absence of the right pectoralis major muscle was detected as a result of physical examination.
RESULTS: All patients were male and mean age was 22.4. Chest radiography and chest computed tomography revealed the absence of the right pectoral muscle whereas normal lung parenchyma and vascular structures were observed. None of the patients had the upper-limb anomalies. In two patients, pulmonary function test results showed mild restrictive type disorder. Echocardiography showed mitral valve prolapse in one patient. Except these pathologies, no additional organs anomalies were detected in patients.
CONCLUSIONS: Mild forms of Poland syndrome are more common than serious forms associated with other organ abnormalities. Various degrees of anomalies of ipsilateral upper extremity and hemithorax can be seen in patients with Poland syndrome. It should be kept in mind that even the patients with the mild forms of Poland syndrome may have additional organ abnormalities, thus detailed examination should be performed in patients with any forms of Poland syndrome.

PP-148 SUCCESFULL LATE REPAIR OF TRUNCUS ARTERIOSUS IN A 3 YEARS OLD BOY

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OBJECTIVE: Truncus arteriosus (TA) is an uncommon congenital cardiac malformation presenting for less than 3% of all congenital heart malformations.The features of TA include a single great artery originating from the the heart, supplying systemic, coronary and pulmonary blood flow, together with a ventricular septal defect (VSD). Without surgical treatment, 80% of patients die within the first year of life, many during early infancy.
METHODS:A three years old boy was referred to our clinic with complaints of shortness of breath and fatigue on exertion. Echocardiography showed single arterial trunk arising from the base of the heart which was the origin of the aorta, pulmonary and coronary arteries with a large perimembranous outlet ventricular septal defect. Truncal valve had 60 mmHg gradient and moderate-severe insufficiency (4.6 m/s). The cardiac catheterization confirmed the diagnosis and after positive vaso-reactivy test (pulmonary artery resistance decreased from 7.87 unit to 3.4 unit) surgery was planned.
RESULTS: The procedure performed through a median sternotomy with standart aorto-bicaval cannulation and under hypothermic cardipulmonary bypass.The pulmonary arteries were excised from the ascending aorta by careful dissection to prevent injury to the truncal valve or left coronary artery.The defect remaining in the ascending aorta was then closed directly without distorting the truncal valve and coronary ostia. A vertical right ventriculotomy was then made and the ventricular septal defect closed with a Dacron patch. A variety of methods were used in the past to establish right ventricle to pulmonary artery continuity, based on allograft availability and underlying anatomy. As a standart aproach, the continuity between right ventricle and the pulmonary arteries was established with a valved conduit.
CONCLUSIONS: Elective repair of TA without major associated cardiac anomalies during the first 3 months of life is advocated by some surgeons, others prefer primary neonatal correction. Delaying the operation beyond 100 days increases the risk of pulmonary hypertensive crises.Truncus arteriosus especially is one of the major pathology leading to pulmonary hypertension early in life and because of this early surgical correction is the most appropriate act for saving the life of the baby. As in our patient, being too late for this pathology is a challenging situation for the surgical teams. In this patient, after decision for corrective surgery we planned to use nitric oxide for the postoperative period. Despite all handicaps for total correction in these type of patients, nitric oxide usage was very useful tool for the early postoperative course.

PP-149 MODERATE AORTIC VALVE REGURGITATION IN THE SETTING OF VSD; IS CONCOMITANT AORTIC VALVE INTERVENTION WARRENTED?

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OBJECTIVE: Aortic regurgitation in the setting of VSD is common. This study is to review the mid term results of aortic valve management (with / without intervention) in the setting of moderate aortic valve regurgitation with VSD.
METHODS: Between June 1992 to December 2010, a total of 56 patients with ventricular septal defects and moderate aortic regurgitation were reviewed. 44 patients had a concomitant aortic valve intervention with VSD closure and the other 12 patients had closure of VSD only.
RESULTS: The mean age of patients who had aortic valve repair was 11.2 +/- 1.41 years. The overall median follow-up was 7.34 years. All 44 patients had aortic valve repair where 72%had Trussler's repair, 16% had leaflet plication and 12% had commisuroplasty. There were 2 patients (1 Trussler's and 1 commisuroplasty)who progressed to severe AR and needed further intervention where they had valve replacement. Those with aortic valve intervention had a freedom from re intervention of 88.3% at midterm follow up. All 12 patients who had VSD closure alone remained asymptomatic till date. However all these patients had a single cusp involvement.
CONCLUSIONS: In the setting of moderate aortic regurgitation with VSD with single cusp involvement, closure of the VSD alone has been shown to be sufficient but this may not be adequate if more than one cusp is involved.

PP-150 COXIELLA BURNETII INFECTION IN A PATIENT WITH OPERATED CONGENITAL HEART DISEASE

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OBJECTIVE:Q fever is a zoonotic infection which is generated by Coxiella Burnetii; a gram-negative obligatory intracellular organism. The presentation of Q fever is extremely variable: infection can lead to asymptomatic seroconversion, acut disesase (ranging from a flulike syndrome to severe pneumonia), or chronic disease (manifesting mainly as endocarditis).
Six years old girl from Sudan who had a Rastelli operation two years ago with the diagnosis of ventriculer septal defect and pulmoner atresia referred to our clinic because of stenosis on conduit. It was learned from epicrisis that six months ago in Jordan she had been intended to put stent for

conduit stenosis but unsuccessful and she had received endocardit treatment due to fever. Physical examination revealed a body temperature of 39,5 C°, midsternal incision surgery scar, hepatomegaly 10 cm below the rib and splenomegaly extending to inguinal. She had a grade 3 of 6 ejection murmur at left second intercostal space on cardiac examination. Transthoracic echocardiography showed turbulent flow output of the left pulmonary artery and sistolic 20 mm Hg gradient at right ventricul outlet. No vegetations were identified. Anjiocardiograms also revealed periferic pulmoner stenosis and conduit stenosis. No verru or abscess on border myokard was detected at cardiac MR. Because of the suspicion of culture negative endocarditis, different antibiotic protocols were applied for two months. Although short term declines in the course of fever, there was no benefit of antibiotherapies. Detailed investigations were perfomed to find fever etiology. The patient's whom coombs test pozitive, bone marrow was normal and thick drop for malaria was negative. Examimations in terms of autoimmune collagen diseases, malignancies, immune-deficiency were negative. Although thick drop was negative, antimalarial therapy was given the patient who had come from a tropical country but no benefit was seen. The diagnostic tests required for infectious etiology of Coxiella Burnetii Ig M, Ig G and PCR were positive and doxycycline and hydroxychloroquine were started. On third day of treatment fever falled and significant reduction in liver and spleen size was observed at first month. The treatment plan was determined as 18 months. Because of the confusion in our patient diagnosis; we wish to emphasize that Coxiella Burnetii infection should be considered in long term fever patients especially from tropical countries with or without congenital heart disease.

PP-151 RIGHT PULMONARY AGENESIS ASSOCIATED WITH DEXTROCARDIA, KLIPPEL-FEIL SYNDROME AND THORACIC OUTLET SYNDROME

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OBJECTIVE: Pulmonary agenesis is a very rare congenital anomaly and other embryological defects usually associated with pulmonary agenesis. Klippel-Feil syndrome is characterized by congenital fusion of servical vertebrae. Compression of brachial plexus and subclavian vessels in the cervicoaxillary region cause thorocic outlet syndrome.
RESULTS:A 21-year-old man was admitted to our hospital with exertional dyspnea. Physical examination, chest X-ray, multidetector computed tomography, magnetic resonance imaging and bronchoscopy revealed right pulmonar agenesis with dextrocardia, Klippel-Feil syndrome and thoracic outlet syndrome.
CONCLUSIONS: To our knowledge, co existence of these four entities have never been demonstrated.

PP-152 ATRIAL SEPTAL DEFECT IN AN ELDERLY MAN–A CASE REPORT

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OBJECTIVE: The atrial septal defect(ASD) is one of the most common congenital anomalies in adults, but it is rarely diagnosed. It is characterized by a defect in the interatrial septum that allows pulmonary venous return to pass from the left to the right atrium. In this case, we have presented a 78-year-old male patient who has got an ASD with Eisenmenger Syndrome.
METHODS:CASE: A case of a 78-year-old male patient who presented with dyspnea, orthopnea, lower extremity edema and palpitations for eight years is reported here. He had a 10 years history of chronic renal failure and hypertension. His blood pressure was 150/70 mmHg and heart rate was 85 beats/minute. There was a fixed splitting of S2, and a 3'/6 degree systolic ejection murmur was heard, best audible at the pulmonic area. Electrocardiography showed sinus rhythm, right axis deviation and nonspecific ST segment and T wave changes. Cardiac shadows were enlarged on the chest X-ray.Transthoracic echocardiography revealed a dilated right atrium of 73,2mm, a dilated left atrium of 51,2mm, a dilated right ventricle of 41,3mm, ostium secundum type ASD with right to left shunt (Eisenmenger Syndrome), severe tricuspid insufficiency with a maximum gradient of 54,4 mmHg and severe pulmonary hypertension of 95 mm Hg and pericardial-effusion.Diltiazem and acetilsalicilic acid were prescribed and an evaluation of the severity of the patient's pulmonary hypertension and whether it is reversible, cardiac catheterization was offered but the patient refused this procedure.
CONCLUSIONS: Ostium secundum type is the most common type of ASD and accounts for 60-70% of all cases. The malformation often goes unnoticed for decades because symptoms may be absent and because physical signs are subtle. Symptoms usually take 30-40 years to develop. They are the consequences of pulmonary hypertension, atrial tachyarrhythmias and, sometimes, associated mitral valve disease. Adults with an uncorrected ASD will present with symptoms of dyspnea on exertion, congestive heart failure, or cerebrovascular accident. They may be noted on routine testing to have an abnormal chest x-ray or an abnormal ECG and may have atrial fibrillation. The echocardiography can establish the size and location of the atrial septal defect, the magnitude and hemodynamic impact of the left-to-right shunt, and the presence and degree of pulmonary hypertension. If Eisenmenger's syndrome has occurred, there is significant risk of mortality regardless of the method of closure of the ASD. The particularity of this case is that the patient lived for over 70 years almost asymptomatic.

Figure-1

Two-dimensional echocardiograpy revealed an ASD with right to left shunt.

PP-153 DIAGNOSIS METHODS AND SURGICAL APPROACH TO SINUS VENOSUS SYNDROME

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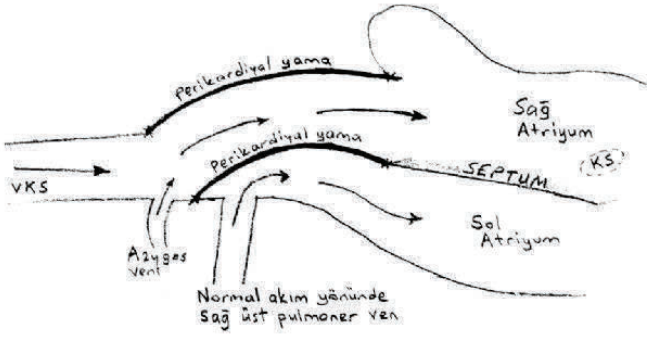
OBJECTIVE: Sinus venosus syndrome is the case of sinus venosus type of atrial septal defect with partial anomalous pulmonary venous return that drains into superior vena cava. This anomaly can be successfully treated surgically after the right diagnosis is made. A detailed research must be carried out with transthoracic and transesophageal echocardiography, as well as cardiac catheterization, cardiac MR or BT in order not to have an unexpected result during the surgery.

Figure



Technique of double pericardial patch

PP-154 "COMING FROM BEHIND TO WIN - A QUALITATIVE RESEARCH ABOUT PSYCHOLOGICAL CONDITIONS OF ADOLESCENTS WHO HAVE UNDERGONE OPEN-HEART SURGERY FOR SINGLE VENTRICLE BETWEEN THE AGES 0-5"

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OBJECTIVE: Early recognition of congenital cardiac pathologies and their treatment by means of palliative or corrective surgery at birth or infancy has vital importance. Successful repair of congenital cardiac defects by surgical methods has gained importance especially during the last twenty years. As the scope of the surveillance increased so did the interest in the outcomes of these treatments when the patients had reached puberty and adulthood. The purpose of our research was to study the psychological framework of the adolescents who had experienced these surgeries by listening both the children and the parents talk about their feelings and experiences. Our data was accumulated through interviews with 17 adolescents and their families, using qualitative methods. The main theme at the end of the analysis was "to be strong and resistive". We reached the conclusion that this condition was not a pathological build up but an attitude of coping, as it did not cause loss of functionality. The defensive psychological mechanisms used by these adolescents consisted of repression, compensation and reaction formation. We believe that this information is important to understand the real meaning of the manners displayed when these adolescents and their families pursue their daily lives, communicate and make relationships with their environment and especially professionals in the health services.

PP-155 EBSTEIN'S ANOMALY WITH PERIMEMBRANOUS VENTRICULAR SEPTAL DEFECT IN AFRICAN CHILDREN

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OBJECTIVE: Ebstein's anomaly is a complex congenital anomaly with abroad anatomic and clinical spectrum. Precise knowledge about the different anatomic and hemodynamic variables, associated malformations, and management options is essential. We studied Ebstein's anomaly associated to a ventricular septal defect, treated with Carpentier technique to repair tricuspid valve malformation.
METHODS:A selected group of 21 patients (mean age 7±2, 16 were male) underwent tricuspid valve reconstruction by Carpentier technique. The surgical procedure included closure of ventricular septal defect with eterologous pericardial patch and

conservative surgery of tricuspid valve (longitudinal placation and repositioning of the anterior leaflet to the native tricuspid annulus). After the operation, all patients were monitored with serial transthoracic echocardiography for eventual occurrence of residual flow across ventricular septal defect and tricuspid valve insufficiency. There were no severe early postoperative complications. No adverse events were reported during follow-up.
RESULTS: Follow-up was complete at 1 year postoperatively. Freedom from reoperation. The examination program during the follow-up period shows: improvement of functional class and exercise tolerance, improvement of systolic function of functional right ventricle, reduction of supraventricular tachycardia and pre-excitation syndrome.
CONCLUSIONS: Midterm results in our patients show satisfactory outcomes. Patients have good long-term survival and functional outcomes after undergoing surgery for Ebstein anomaly.

PP-156 COEXISTENCE OF PERSISTENT LEFT SUPERIOR VENA CAVA, ABSENT RIGHT SUPERIOR VENA CAVA AND CORONARY ARTERY ANOMALY

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OBJECTIVE: Persistent left superior vena cava (PLSVC) is the most common congenital venous anomaly of the thoracic venous system, occurring in 0.3% to 0.5% of individuals in the general population. PLSVC may be associated with other congenital anomalies. It occurs in up to 12% of individuals with other documented congenital heart abnormalities. Absent right superior vena cava (ARSVC) is the most common congenital anomaly associated with PLSVC, occurring about 30% of patients. However, coexistence of PLSVC and coronary artery anomaly has not been reported in the literature. In this paper, we report a patient with PLSVC, ARSVC and an anomalous origin of circumflex coronary artery from the right sinus of Valsalva.
METHODS:67 years old female patient with dilated cardiomopathy was admitted to our department with worsening of heart failure symptoms. On physical examination; pan-systolic murmur at the apex and inspratory rales at the ½ lower parts of both lungs were remarkable during auscultation. ECG showed normal sinus rhythm and left bundle block (QRS duration:145 msc). Echocardiography showed dilatation of the left ventricle and the left atrium, marked dilatation of the coronary sinus (CS), mild mitral regurgitation, and left ventricular dysfunction (LVEF 30%). Also the circumflex artery was found to be originating from the right sinus of Valsalva. Agitated saline injection from the left antecubital vein resulted in opasification of the CS before the right atrium showing the presence of PLSVC. Agitated saline injection from the right antecubital vein also resulted in opasification of the CS before the right atrium showing the presence of ARSVC. No other congenital abnormality was found at the transthorasic echocardiographic examination. RSVCA was confirmed by the contrast venography from the right arm and PLSVC was confirmed by the contrast venography from the left arm. Coronary angiography revealed that the circumflex coronary artery was originating from the right sinus of Valsalva. There was no critical obstruction in any coronary arteries.
CONCLUSIONS: This is the first reported case of coexistence of PLSVC, RSVCA and an anomalous origin of circumflex coronary artery from the right sinus of Valsalva. PLSVC should be considered when coronary sinus dilatation is found during echocardiography. Diagnosis is confirmed by agitated saline injection and/or contrast venography from both left and right arms. PLSVC is mostly asymptomatic and diagnosed incidentally. PLSVC, especially when it is together with ARSVC, can cause problems during central venous catheterization, pacemaker implantation and retrograde cardioplegia during cardiopulmonary bypass operation.

PP-157 SUCCESSFUL REPAIR OF ANOMALOUS RETURN OF THE LEFT LUNG IN A 51 YEAR OLD FEMALE

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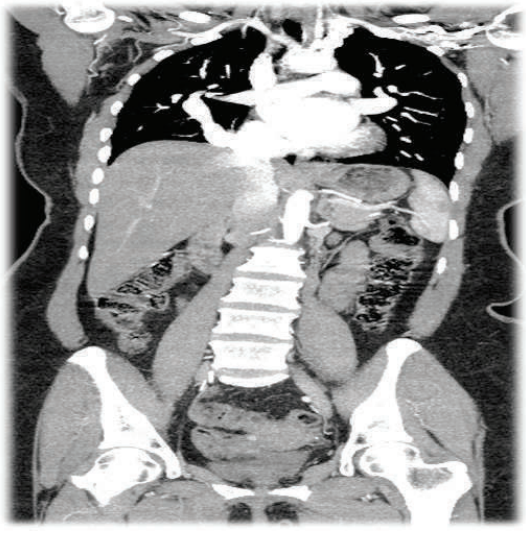
OBJECTIVE: Abnormal pulmonary venous connection is a rare anomaly in adult cases. It counts 1-5% of all congenital cardiac anomalies. One third of those cases are connected to the inferior vena cava.
METHODS: We have operated a 51 year old female patient with abnormal pulmonary venous return. She was admitted to our clinic with tachypnea, shortness of breath and chest pain. Routin cardiac examination revealed no definitive data for diagnosis. There was enlargement on the right paracardiac side. The computerized tomography of thorax has identified connection of the right pulmonary vein to the inferior vena cava.
RESULTS: She has been operated with median sternotomy and on cardiopulmonary bypass without cross clamping of the aorta. The right pulmonary vein has been transected from the inferior vena cava, and mobilized into the pericardial cavity through a hole on the pericardial sack posterior the phrenic nerve. It has been anastomosed to the side clamped lateral wall of the left atrium on beating heart conditions. The postoperative course was uneventful.
CONCLUSIONS: Abnormal pulmonary venous return is a surgically reparable congenital rare anomaly. This technique was used succesfully and she is now in well condition.

CT angiographic image



PP-158 CONGENITAL AORTA RIGHT ATRIAL FISTULA

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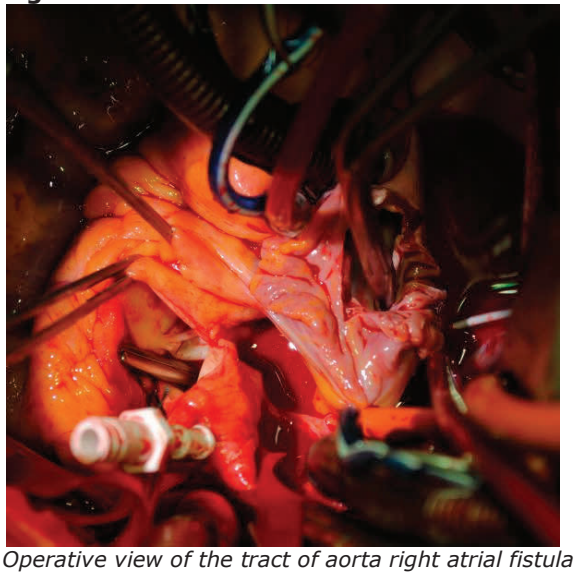
OBJECTIVE: Aorta right atrial fistula is reported as a rare condition. Congenital type of aorta right atrial fistula is even rarer. Most of the cases in the literature was described to be occured as a complication after an aortic valve or dissection surgery. Herein we report a successfully surgically treated case of an asymptomatic adult type congenital ascending aorta right atrial fistula.
METHODS:A 31-year-old female patient with no complaints was admitted to the hospital for routine check-up. She had no remarkable medical history. Cardiac murmur on aortic and mesocardiac areas was found during auscultation. Trans-thoracic and trans-eosophageal echocardiography were performed and they revealed an aorta right atrial fistula. Cardiac cathetherization was performed to measure the gradient of the fistulae and to visualize the underlying anatomic structure, and to exclude concomitant coronary artery disease. Coronary angiography confirmed the diagnosis.
RESULTS: Median sternotomy was performed. Aortic arterial and selective venous cannulations were performed. Cardiopulmonary bypass was initiated. Aorta was cross clamped. Superior and inferior vena cava snarings were performed. Potassium enriched blood cardioplegic solution was used via antegrade way to arrest the heart and myocardial protection was supplied via retrograde way. Oblique aortotomy and right atriotomy were performed. After the exploration it was found that the fistula with a large opening was originating from the aorta and left anterior descending and circumflex arteries were originating 1 cm distally from the origin of the fistula. Right atrial opening of the fistula had a cribriform shape. We passed the tract of the fistula easily by a surgical dissector. Fistula was 2 cm in diameter. The tract of the fistula was closed by sutures placed just distally of the orifices of coronary arteries. Right atrial opening of the fistula was closed by a pericardial patch. Early and late postoperative periods were uneventful.
CONCLUSIONS: The aorta right atrial fistula was accepted as a member of aorta cameral fistulas. Surgical treatment is mandatory. The aim of the surgical approach should be to occlude the tract of the fistula without an impairment in coronary circulation.

Figure 1



Operative view of the tract of aorta right atrial fistula that was passed by a surgical dissector.

PP-180 A COMBINATION OF PERSISTENT LEFT SUPERIOR VENA CAVA AND SUBAORTIC DISCRETE MEMBRANE

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OBJECTIVE:A persistent left superior vena cava is the most common congenital anomaly involving the systemic veins. It occurs in approximately 0.5% of the general population. In 3% to 10% of patients with persistent left superior vena cava, other cardiovascular abnormalities. A discrete subaortic membrane is a rare cause of subaortic stenosis in adult. It may present as in an isolated form as fibrous or fibromuscular ring below the aortic valve or or it may be in association with other congenital anamolies. This is the first case of a persistent left vena cava superior with a subaortic discrete membrane.
METHODS:A 24 years old man was admitted to our out patient clinic because of shortness of breath and

palpitation. On cardiac auscultation, a grade 2/6 systolic ejection murmur was heard at the second right intercostal space. The electrocardiography demonstrated normal sinus rhythm.

RESULTS: Transthoracic echocardiography (TTE) showed a dilated coronary sinus (CS) and a subaortic discrete membrane causing a maximum gradient of 30 mmHg (Figure 1A,1B). An agitated saline was injected from the left antecubital vein. The contrast first appeared in the coronary sinus (CS), then in the right atrium (Figure 1C).

CONCLUSIONS:A persistent left superior vena cava is found in 0.3-0.5% of the general population and in up to 10% of patients with a congenital cardiac anomaly. It is the most common thoracic venous anomaly and is usually asymptomatic. Being familiar with such anomaly could help clinicians avoid complications during placement of central lines, Swan-Ganz catheters, PICC lines, dialysis catheters, defibrillators, and pacemakers. A discrete subaortic stenosis is one of the many lesions responsible for left ventricular outflow tract (LVOT) obstruction the condition is rarely diagnosed antenataly or in infancy but often manifests in the first decade of life with features of progressive LVOT obstruction, LV hypertrophy and dysfunction aortic regurgitation due to damage to the aortic cusps because of the jet from the subaortic narrowing which may also render the aortic valve prone to infective endocarditis.

Figure

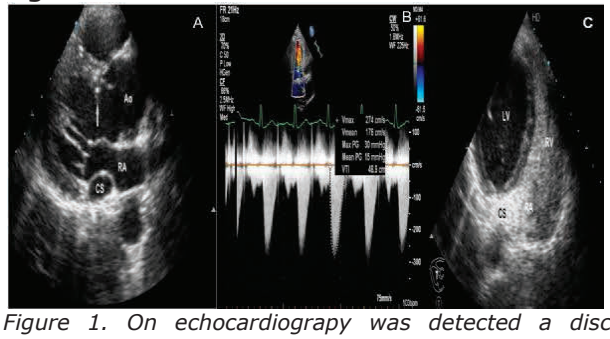

Figure 1. On echocardiograpy was detected a discrete membran with persistent left superior vena cava.

PP-181 PERIMEMBRANOUS VENTRICULAR SEPTAL DEFECT AND PARACHUTE MITRAL VALVE TOGETHER WITH PARACHUTE TRICUSPID VALVE

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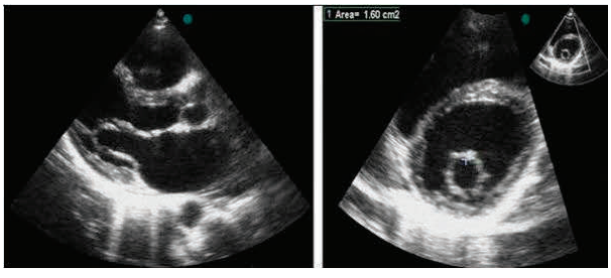
OBJECTIVE: Parachute mitral valve(PMV) is a rare congenital anomally and defined as unifocal attachment of the mitral valve chordae to a single papillary muscle(1). Parachute mitral valve is usually associated with left sided obstructive lesions. We described a case of parachute mitral valve accompanying with parachute tricuspid valve, perimembranous ventricular septal defect and anomalous origin of the left circumflex coronary artery

METHODS:A 33-year-old male patient presented to the our cardilogy department with complaint of dyspnea and palpitations. Transthoracic echocardiography showed parachute mitral valve, parachute tricuspid valve, and perimembranous ventricular septal defect, mild right ventricular dilatation(3,8 cm).

RESULTS: He underwent transcatheter closure of the perimembranous ventricular septal defect with 10 mm Amplatzer septal occluder. On echocardiographic examination after the procedure there was no shunt. During the follow-up period, the patient was without complaints.

CONCLUSIONS: Parachute mitral valve is rarely found as an isolated lesion and usually associated with other congenital anomalies of the heart. Ventricular septal defect may accompany, coronary artery abnormality is extremly rare. Our patient has mild mitral stenosis, only perimembranous ventricular septal defect was successfully treated with Amplatzer septal occluder.

transthoracic echocardiography showing parachute mitral valve and mild mitral stenosis



PP-182 PARTIAL AV CANAL DEFECT WITH LEFT SUPERIOR VENA CAVA TO LEFT ATRIUM WITH ABSENT CORONARY SINUS WITH MESOCARDIA: A CASE REPORT

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RESULTS:A persistent left superior vena cava (LSVC) draining through a dilated coronary sinus into the right atrium is a relatively common congenital cardiovascular anomaly. However, a LSVC draining into the left atrium (LA) and associated with the absence of coronary sinus, with resulting interatrial communication, is rare and may have important clinical consequences. We present a case of 46-year-old gentleman from Nigeria presenting to us with history of progressively worsening dyspnoea on effort grade III for 10 years. On cardiovascular examination P2 was loud, apex was situated in right 5th ICS just lateral to sternum and there was grade II systolic thrill, grade II parasternal heave with palpable P2. He was decongested. Echocardiography revealed dextrorotated heart with mesocardia, SVC draining into RA. 3 pulmonary veins could be identified draining to LA. Aortic arch was left sided. There was a large septum primum defect with predominant left to right shunt. Coronary sinus could not be found. Both AV valves were severely regurgitant with cleft in anterior mitral leaflet (AML).There was severe pulmonary arterial

hypertension. Angiography revealed LSVC draining to Left sided chamber. Patient was finally planned for elective surgical correction on 14-02-11. Patient was taken on CPB with aortic and tricaval cannulation and antegrade hyperkalemic cold blood cardioplegia. Mesocardia was confirmed, aorta and PA were side to side. LV was left and anterior; RV was on right side pushing the right atrium posteriorly and on the right. Relationship of RA and LA was side to side posterior to both ventricles. Right atriotomy was done and interior of RA was exposed with the help of mitral retractor. There was a large ostium primum defect, coronary sinus was not visible, anterior mitral leaflet was cleft. Opening of LSVC was seen with difficulty and was located at the base of left atrial appendage. Distance between the opening of LSVC and Inter atrial septum was too much to plan some rerouting procedure. The cleft in AML was repaired with interrupted 6-0 Prolene suture. The septal defect was closed with gluteraldehyde treated autologus pericardium with continuous Prolene 4-0 suture thereby maintaining the opening of LSVC into LA with acceptable arterial desaturation.
Patient had a long postoperative ICU and hospital stay primarily because of pulmonary infection and recurrent pleural effusion which was managed with repeated ultrasound guided aspirations and intensive broad spectrum intravenous antibiotics. Finally patient was discharged from hospital in satisfactory condition on 14-03-11.

REPORTS ON IMAGING, INTERVENTION AND SURGERY IN CORONARY DISEASE - POSTER PRESENTATION

PP-255 A RARE CAUSE OF ACUTE CORONARY SYNDROME: ACUTE INFEROLATERAL MYOCARDIAL INFARCTION AFTER CONSUMING MAD HONEY

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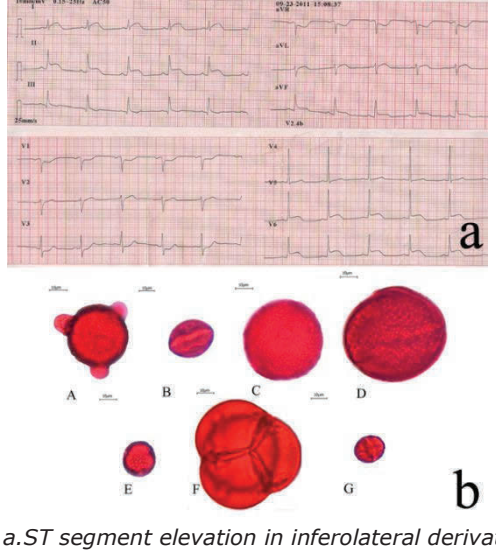
OBJECTIVE:A 37-year-old male patient with no known history of cardiac disease was admitted to our emergency department with sudden severe nausea, vomiting and chest pain in the last 3 hours. The patient had no previous diabetes mellitus, hypertension, cigarette smoking, hyperlipidemia, or cardiac family history. His physical examination revealed arterial blood pressure 80/60 mmHg and heart rate 65/min. Cardiac murmur was not detected. His ECG showed ST segment elevation in inferolateral derivations (D2,AVF,D1,AVL,V1 and V6)(Figure1a). Due to continued chest pain, the patient was taken to angiography laboratory. His coronary angiography was normal. His transthoracic ecocardiogram showed hypokinesia in basal segments of the inferior and anterolateral wall, and mild mitral regurgitation. It was discovered that, at breakfast time, the patient had consumed three spoonfuls of regional honey borrowed from a neighbour in order to cure a cold that had persisted for a week. The patient was followed in our intensive care unit. Cardiac enzyme and troponin levels that were negative on admission turned positive in cardiac control analyses. A sample of the honey consumed by the patient was obtained and analyzed, and grayanotoxin was identified as an etiologic agent. Pollen analysis (Melissopalynology) showed that most of the existing pollen belonged to Cistus creticus (% 38,46) and Castanea sativa (% 17,95). The others were Cistus salviifolius (% 12.82), Fagus species(sp) (% 10.26), Salix sp. (%10.26), Rhododendron ponticum (%7.69), Symphytum sp. (%2.56) (Figure 3A, 3B, 3C, 3D, 3E, 3F and G respectively). Direct microscophic images of Castanea sativa, Cistus salviifolius and Rhododendron ponticum were demonstrated in Figure 1b.
The patient received medical treatment in our hospital for a week, warned not to consume mad honey again, and discharged. On his one month follow-up, he had no active cardiac complaint, and the left ventricular wall motion abnormality seen previously in his ecocardiogram had disappeared.
Mad honey poisoning constitutes an unusual subtype of food poisoning. That occurs as a result of consuming honey contaminated by grayanotoxins present in the flowers of certain plant species of the Ericaceae and Sapindaceae families. It often presents with cholinergic symptoms such as hypotension or bradycardia, and more rarely results in acute coronary syndrome. Here we report a case of acute inferolateral myocardial infarction in a patient who was admitted into our emergency department with severe chest pain, nausea and vomiting after consuming honey contaminated with grayanotoxins.

Figure



a.ST segment elevation in inferolateral derivations. b.Image of pollen from Cistus creticus (A), Castanea sativa (B), Cistus salviifolius (C), Fagus sp. (D), Salix sp. (E), Rhododendron ponticum (F) and Symphytum sp. (G). Woodhouse method; safranin glyserine gelatine, images of A, B, C, D, E, F and G. The scale left upper of each photomicrograph represents 10 µm.

PP-256 SUCCESSFUL TREATMENT OF OMENTOPLASTI AND PECTORAL MUSCLE FLAP AT DEEP STERNAL INFECTIONS AFTER CARDIAC SURGERY

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OBJECTIVE: Severe sternal wound infection following open heart surgery represents a rare but life threatening complication. This complication is reported 11.5 percent with 0.16% (mean 1.5%). We reported 4 cases with deep sternal infection after open heart surgery and we introduced our results of strategy on surgical sternal wound debridement and reconstruction with omentoplasti +pectoralis major flaps.
METHODS: Between 1 January 2006 to 31 December 2011 after coronary-bypass in the treatment of sternal infections 4 patients analyzed retrospectively applied omentoplasti + pectoral muscle flap. All of the patients underwent CABG using internal thoracic artery and saphenous vein. Their ages ranged between 61 and 68 the average age was 64 ± 2.94. All patients were male, 75% had a history of smoking and diyebet, the most frequent pathogen in patients is. Methicillin-Resistant Staphylococcus Aureus (MRSA). The average hospital stay time is 24 days. Patients after surgery, an average of 14 ± 4 (10-18) days was discharged home. There was no hospital mortality.
RESULTS: After Deep sternal infection in patients undergoing revision omentoplasti + pectoral muscle flap application and wound healing and shortens the duration of hospital stay we believe it should be used as an effective method in case of need

PP-257 INCIDENCE OF DEVELOPMENT OF ASPIRIN RESISTANCE IN THE EARLY POSTOPERATIVE PERIOD AFTER CORONARY ARTERY BYPASS SURGERY AND INADEQUATE INHIBITION OF THROMBOXANE A2 PRODUCTION

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OBJECTIVE: The aims of this study are to investigate i) the frequency of development of aspirin resistance in the early postoperative period in patients undergoing coronary artery bypass grafting (CABG) and whether this resistance was reversibl and ii) the efficiency of the mechanism of incomplete inhibition of thromboxane A2 in development of aspirin resistance in early postoperative period after CABG.
METHODS: Between February 2009 and March 2010, 80 patients (mean age 63.1±9.19, 55 male) with coronary artery diases diagnosis who underwent elective CABG in our clinic were included into the study. The venous blood samples were collected from patients and processes by PFA-100 in preoperative period and in postoperative seventh and fifteenth days. Aspirin resistance diagnosis was described as a collagen-epinefrin closure time lower than 186 second. Urine levels of 11-dehidro thromboxane B2 were also measured on postoperative first day.
RESULTS: Aspirin resistance was found in 23 patients (28.75 %) in the preoperative period, in 31 patients (38.75 %) on postoperative seventh day and in 25 patients (31.25 %) on postoperative fifteenth day. The urine levels of 11-dehidro thromboxane B2 in patients with asprin resistance on postoperative seventh day were significantly higher than the levels in patients without aspirin resistance ($p < 0.001$). The mean aortic cross clamping time (66.41 ± 29.44 vs 50.73 ± 18.78, $p=0.003$) and cardiopulmonary bypass time (105.22 ± 42.23 vs 89.28 ± 28.74; $p=0.029$) in the patients with aspirin resistance on postoperative seventh day were significantly higher than the levels in patients without aspirin resistance.
CONCLUSIONS: The results of this study suggest that i) aspirin resistance develops in postoperative seven day after CABG and this resistance is highly reversibl and ii) the mechanism of inadequate inhibition of thromboxane A2 by aspirin is efficient during development of aspirin resistance in early postoperative period after CABG.

PP-258 FUNCTIONAL SINGLE-LUNG-CORONARY BY-PASS SURGERY IN A HEART PATIENT EMPLOYEE CASE REPORT

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OBJECTIVE: Hemithorax as a single functional lung tissue, and the coexistence of coronary artery disease requiring surgical treatment are rare. Coronary catheterization centers and clinicians trained in this field in recent years, great progress has been made in diagnosis and treatment increases. And surgical diseases in which different systems together with the planned surgical strategy for coronary artery disease is extremely important. We spent the cases of pulmonary tuberculosis 39 years ago, after which lung function as a single hemithorax, surgical treatment of carotid artery disease in patients with existing coronary artery talked about.
METHODS:60 year old male patient with complaints of chest pain with the diagnosis of coronary artery disease, coronary catheterization laboratory for angiography was in order. The femoral route was coronary catheterization. During the procedure the patient's right main coronary artery (RCA) 70%, left main coronary artery (LAD) lesion in 99% of orders were issued gorulerek surgery. His past medical history of tuberculosis 39 years ago because of his lung involvement, as a single functional lung tissue were hemitoraxta. In preparation for the operation of carotid CT angiography in the patient's right internal carotid artery is fully occluded, the left Cammon Carotid artery occlusion were full. Ongoing chest pain to the patient under general anesthesia, the median

was sternatomi. Anesthesia by working with the bell, keeping surgical treatment of high blood
RESULTS: Surgical treatment of coronary artery disease scheduled simultaneously with the other systems which can be found in different diseases. Ekstracorpereal circulation and aortic cross-clamp application of hypothermia in these patients has important disadvantages. Beating Heart Coronary by pass techniques should be preferred for the appropriate locations of coronary lesions are present.
CONCLUSIONS: Especially in severe lung disease, and left ventricular ejection fraction in patients with prolonged circulation ekstrakorpereal inconvenient. Due to coronary artery disease scheduled for surgery and surgical strategy in patients with other systems that draw diseases is extremely important. A prolonged circulation and aortic cross-clamp application ekstrakorpereal advantages / disadvantages well calculated. Location of coronary lesions in patients with these risk groups is very important. Beating Heart Coronary by pass techniques should be preferred for the appropriate locations of coronary lesions are present. However, hypotension and arrhythmias may develop during the manipulations necessary for anastomosis against hemodynamic changes due to be prepared.

PP-259 INCIDENTAL DIAGNOSIS OF THYMIC CARCINOMA IN PATIENT UNDERGONE CORONARY ARTERY BYPASS SURGERY

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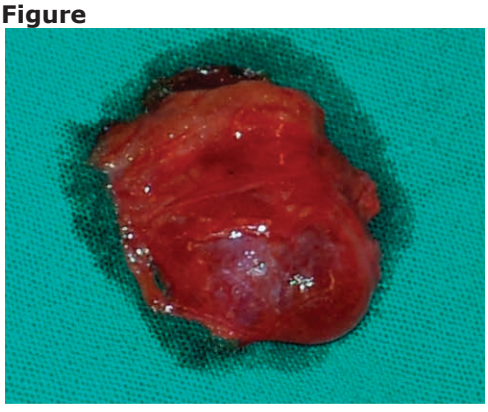
OBJECTIVE: In this article we present incidental diagnosis of thymic carcinoma in patient undergone coronary artery bypass surgery.
METHODS:A 50-year-old male patient presented at our cardiovascular surgery department with coronary artery disease. The patient was prepared for coronary artery bypass surgery. Preoperative transthoracic echocardiography revealed that ejection fraction was 60%. In the operating room, after median sternotomy, we observed midline mass within the thymus which was exhibiting adhesion to the adjacent tissues. We consulted this issue with the thoracic surgeon. After letting the adhesions free it was excited completely with surgical border. In pathologic examination it was revealed thymic carcinoma. The coronary artery bypass surgery was finished in a usual manner.
RESULTS: The patient was discharged in postoperative seventh day with no complication and sent for chemotherapy.
CONCLUSIONS: After performing median sternotomy in open heart surgery, thymic structures should also be examined for observing any undiagnosed malignancies. The early diagnosis of such malignancies may be the fortune for patients.

Figure



PP-260 IATROGENIC RUPTURE AND TAMPONADE DEVELOPMENT OF CORONARY ARTERY HEART CATHETERIZATION DURING CASE REPORT

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OBJECTIVE: Diagnosis and treatment of coronary artery disease, cardiac catheterization is used more widely, especially in recent years. Increased complications after cardiac catheterization procedure is observed. Rarely, iatrogenic coronary artery injuries mortal injuries. The incidence of these complications may come across between 1-1.5%. This reason, early diagnosis of cardiac catheterization and intervention, and emergency surgical treatment of injuries may develop during the life-saving. We have in this **CASE:** Coronary artery catheterization and coronary artery during an attempt to develop rapidly progressive tamponade as a result of rupture of the clinic and talked about in the emergency surgical methods.
METHODS:39 years old male patient, the diagnosis of coronary artery disease, coronary angiography in the catheterization laboratory was the purpose. Send femoral circumflex coronary artery catheterization procedure was started and 99% severe lesions have been identified. Circumfleks coronary artery balloon dilation was planned initiative. Artery was perforated during dilation circumfleks viewed. The patient's follow-up is decreasing rapidly and the heart tansiyonlarinin tachycardic pulse peak due to the emergency by the heart and vascular surgery, rupture, tamponade due to coronary artery were included in the operation.
RESULTS: Coronary artery perforation tamponatla often arises. Perforation of emergency stent implantation may be tried. If there is insufficient buffer methods, and the lesion with a balloon Protominle notrolizasyon delayed surgical option. These methods are not successful, the development of tamponade clinic that would spoil the emergency surgical treatment of coronary artery perforation and dissection method dogrudur.Unutulmamalidir transition delay surgery extremely negative effect on mortality.
CONCLUSIONS: Especially in coronary artery injury, rupture and dissection in the development of tamponade complication. May require emergency surgery. Emergency surgery before and after

preparation for hemodynamic stabilization and delayed surgery is important in terms of mortality and morbidity.

PP-261 DETACHMENT AND DISLOCATION OF THERMOREACTIVE CLIPS FROM STERNUM IN LATE POSTOPERATIVE PERIOD DUE TO MISUSE

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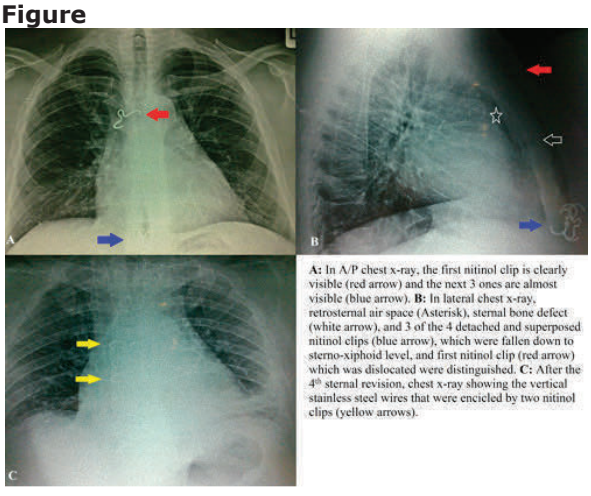
OBJECTIVE: Median sternomy is the most common method of access to the heart and great vessels in cardiac surgical procedures. However, particularly in obese and diabetic patients, some complications may be encountered; such as dehiscence, osteomyelitis, mediastinitis, and superficial wound infection or fistula formation. In order to overcome these complications, some alternative surgical techniques and surgical equipment were designed for sternal closure. 'Nitinol thermo reactive clips' is one of them. In this manuscript, we reported a patient with detachment of thermo reactive clips from sternum in the late postoperative period due to wrong measurement of distance between intercostal spaces.
METHODS:A 44-year-old diabetic man, who underwent 3 reoperations for sternal dehiscence after undergoing Coronary Artery Bypass Graft (CABG) surgery, presented to our department with sternal dehiscence, wound infection and serous discharge from upper half of the incision. During respiration, there was air inflow and outflow, from the anterior mediastinum, through the sternal bone defect which was 1.5x1 cm in size.
After the patient was admitted, chest X-ray in A/P orientation revealed the one of the four nitinol clips that were used during the last revision was dislocated and the next 3 ones was superposed at the level of the xiphoid process. The first clip was and the others were detached from sternum. In lateral view of the chest x-ray, the three superposed nitinol clips were clearly identified at the level of xiphoid process. The patient's medical treatment was adjusted, and tissue cultures were found to be clean for 3 times. After then, the patient was recommended 4th sternal revision. During the operation, first clip was found dislocated to the intercostal space, and the next three nitinol clips, to the sterno-xiphoid level. We found, all of them were oversized. In this stuation we used the Robicsek Modification to expand the distance between intercostal spaces, then we used those oversized clips, which suited the sternum firmly.
RESULTS: Postoperatively, no problems occurred and sternal stability was excellent. The patient was discarged from our clinic at 5th postoperative day with excellent sternal stability.
CONCLUSIONS: As a result, in order to get excellent results while using Nitinol clips in sternal dehiscence repair, we advise our colleagues to use Backaus forceps rather than caliper in measuring distance between intercostal spaces. Because we think that measuring distance with caliper may cause oversizing in learning curve.

Figure



A: In A/P chest x-ray, the first nitinol clip is clearly visible (red arrow) and the next 3 ones are almost visible (blue arrow). **B:** In lateral chest x-ray, retrosternal air space (Asterisk), sternal bone defect (white arrow), and 3 of the 4 detached and superposed nitinol clips (blue arrow), which were fallen down to sterno-xiphoid level, and first nitinol clip (red arrow) which was dislocated were distinguished. **C:** After the 4th sternal revision, chest x-ray showing the vertical stainless steel wires that were encicled by two nitinol clips (yellow arrows).

PP-262 FEATURES OF OPERATIVE AND EARLY POSTOPERATIVE PERIOD IN PATIENTS WITH INTRAMURAL COURSE OF CORONARY ARTERIES WITH ATHEROSCLEROTIC LESIONS

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OBJECTIVE: To study the features of operative and early postoperative period of patients with intramural course (IC) of coronary arteries (CA) with atherosclerotic lesions.
METHODS: We analyzed features of perioperative period for 204 patients (182 men, 22 women in middle age of 58.5) with IC of CA, which were found during coronary artery bypass grafting (CABG). Almost all patients had angina pectoris (98.5%), 108 (52.9%) patients had shortness of breath, 143 (70.1%) patients had myocardial infarction in anamnesis. All patients underwent standard diagnostic methods (ECG, ECHO and angiography), CABG was also performed for everybody.
RESULTS: We noticed IC of CA in 9% of the operated patients with ischemic heart disease (IHD). In 181 (88.7%) patients CABG performed off-pump, in 23 (11.3%)-on-pump. Probable operating mortality on a EUROSCORE scale was - 5.4%, while real mortality - 0%. In 175 (85.8%) cases IC had 1 CA, in 25 patients (12.2%) IC had 2 CA and in 4 (2%) cases IC - 3 CA. It should be noted that 13 patients (6.4%) were taken for CABG because of stent restenosis in intramural located CA. In 98 cases (48.3%) IC had LAD. Perioperative period characterized by development of atrial fibrillation (AF) in 27%, ventricular fibrillation (VF) in 7%. During manipulation on IC CA we noticed appearence of ischemic changes on ECG, destabilization of hemodynamics with hypotension.
CONCLUSIONS: The perioperative period in patients with IC and atherosclerotic lesions of CA characterized by frequent disturbances of heart

rhythm with a prevalence of AF (27%) and VF (7%), development of acute heart failure registered in 7.8% of cases, which indicates hemodynamic significance of this pathology. Thus, for successful surgical treatment of such patients is important to make distal anastomosis below the exit of the artery from myocardium and, if necessary, use the wide coronarygraftplasty.

PP-263 ELIMINATING THE SHORTNESS OF SAPHEN VEIN GRAFT BY DISSECTING RIGHT ATRIOVENTRICULAR GROOVE IN SELECTED CASES IN AORTOCORONARY BYPASS SURGERY

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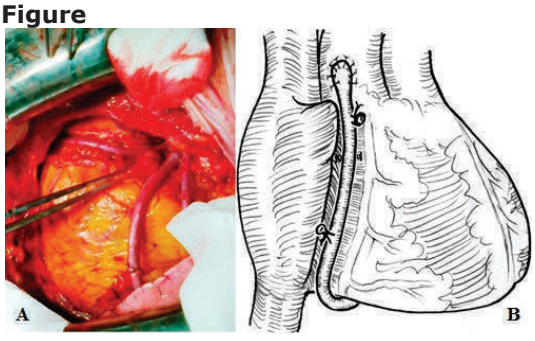
OBJECTIVE: The length of the saphen vein graft may be a problem in cardiac surgery. To estimate the exact length of the saphen vein graft may be a problem in some cases. All cardiac surgeons use some maneuvers such as excessive filling the heart. A suitable saphen vein graft could not be obtained because of generalize varicose veins. Surgeon should make a good decision to determine a suitable graft length. Herein, we clarify to deal with this displeased situation using epicardial and fatty dissection, if the graft length is not enough for proximal anastomosis to the ascending aorta or other saphenous vein grafts.
METHODS: The length of saphen vein graft may be adjusted a little bit shorter. After performing distal anastomosis of saphen vein, if the length of vein was about 1-1.5 cm shorter, one of the options to be done is replacing the graft with another one, having enough length. Alternatively, removing epicardial fatty tissue just proximal to the right atrioventricular groove correspondingly to the right coronary artery course may eliminate the saphen vein graft shortness. Otherwise, renewing distal and proximal anastomosis necessitates additional cross-clamping and side clamping unless off-pump surgery is accomplished. This may increase the morbidity and mortality. The factors that possibly increase mortality and morbidity can be avoided by removing epicardial fatty tissue to make a suitable bad for saphen vein graft. However, if the shortness of graft is more than 1.5 cm, replacing the graft with appropriate one is logical behavior for maintaining the graft patency and flow dynamics.
RESULTS: Length of saphen vein graft can be optimized in such a way in selected cases.
CONCLUSIONS: This method should be in mind of cardiac surgeons as an alternative approach if the shortness of graft is smaller than 1.5 cm.

Figure



A: Dissected right coronary artery line and placed vein graft

B:Illustration of the placed graft

PP-264 SIGNIFICANT IMPROVEMENT OF LEFT VENTRICULAR FUNCTIONS AFTER ANEURYSM REPAIR

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OBJECTIVE: Left Ventricular Aneurysm(LVA) occurs following acute transmural myocardial infarction in 7,6 % of coronary artery disease (CAD) patients undergoing coronary angiography. The clinical status depends on amount of myocardial mass affected and degree of ventricular tension. Arrhytmias, heart failure, thomboembolic events and death within 1 year irrespective of ejection fraction occur more commonly in patients with LVA. In Turkish population hypertension, hypercholesterolemia, diabetes, family history of CAD, smoking, age, body surface area, previous medication, location of myocardial infarction and coronary colleteral circulation were not found to be risk factors whereas female gender, absence of previous angina (unprepared myocardial tissue more prone to damage), single vessel disease and total LAD occlusion were found to be independent determinants. Direct suture and patch ventriculoplasty exist as surgical options. Purpose is to recreate normal LV geometry so that fibers of healthy myocardium regain initial orientation. Exclusion of the retractive process, elimination of paradoxical motion and reduction of the akinetic zone are advantages.
METHODS:A 52 year old Caucasian male admitted to our hospital for chest pain. ECG revealed previous anteroseptal myocardial infaction. Ejection fraction was 18% and LVEDD was 4,7 cm on echocardiography. Big apical left ventricular aneursym was observed with thrombi in it. LAD was totally occluded after first diagonal branch which was 90% occluded. Intraoperatively a huge anteroseptal left ventricular aneurysm (9X5 cm) was detected. There was thrombus in it. Ventricular endoaneurysmorraphy was performed using a Dacron patch and overlying myocardial wall was primarily sutured with Teflon felt support on both sides. Left internal mammarian artery was anastomozed to first diagonal branch, since LAD territory was mostly in the aneurysmatic region.

RESULTS: Patient did not require any inotropic or intraaortic ballon pump support. The postoperative ejection fraction was 33%. The functional capacity increased from NYHA class 3-4 preoperatively to 1-2 postoperatively
CONCLUSIONS: Surgical repair of the LVA remains the best therapy in todays cardiac era. We routinely perform ventricular endoaneurysmorraphy either with fresh pericardial or Dacron patch in our clinic concomitant coronary revascularization if feasible. We believe that the functional class better improves with patch plasty. Postoperative warfarin therapy should be administered to prevent postoperative thromboembolic events that can arise from the patch side of the inner ventricular cavity which is akinetic and non-endothelized.

PP-267 IS THE HbA1C LEVEL A RISK MARKER IN CORONARY ARTERY BY PASS SURGERY?

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Objective: The effect of glycosylated hemoglobin (HbA1c) level on short term results following coronary artery bypass grafting surgery were compared.
Methods: Two hundred and fifty four patients (106 males, 44 females; mean age 61.69±10.06 years; range 37 to 84 years), who underwent coronary artery bypass grafting surgery in our clinic between 2007 and 2010, were enrolled in this study retrospectively. Every patient including non-diabetics were managed with Portland protocol in the perioperative period.
Results: Mediastinitis was observed in two patients (1.3%). Elevated HbA1c levels do not affect the short term infectious complications, however the patients who had elevated perioperative glucose levels had higher incidence (0 vs 3%, p=0.01) of mediastinitis and local sternal infection (2.3% vs 12.1%, p=0.002).
Conclusion: Elevated HbA1c levels do not cause any risks in infectious complications following coronary artery bypass grafting surgery.

PP-268 ASSEESSING THE NEUROCOGNITIVE FUNCTION EFFECTS OF KETAMIN IN CARDIAC SURGICAL PATIENTS

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OBJECTIVE: Despite remarkable progress in surgical, cardiopulmonary bypass(CPB) and anesthetic tecniques, neurocognitive damage still remains an important cause of postoperative morbidity in cardiac surgery(1). The aetiology of neurocognitive damage is likely to be multifocal; including macro and microemboli, cerebral hypoperfusion, inflammation and nonpulsatile flow. N-methyl-D-asparticAcid(NMDA) receptors play an important role during neurocognitive damage(2). Ketamine is a non-competitive antagonist to the phencyclidine site of NMDA receptor for glutamate and directly suppresses proinflammatory cytokine production(3). The aim of the present study was to evaluate whether ketamine has neuroprotective effects during open-heart surgery through the use of neurocognitive tests.
METHODS: We considered all patients aged between 58-76 years who were referred to a single cardiothoracic surgical team for elective, primary coronary revascularization. Patients were excluded from the study for the following reasons: a history of neurological, psychiatric, gastrointestinal, hepatic, renal, hematologic and clotting systems disorder and repeat procedures. Patients undergoing CPB were randomized 2 groups:
Group1(ketamine)(n=25) or
Group2(propofol)(n=25)
In the propofol group,
anesthesia was induced with 3mg/kg propofol, 1µg/kg remifentanyl, 0.1mg/kg vecuronium. Remifentanyl 0.5-1µg/kg/min was infused intravenously throughout the whole procedure. In the ketamine group, anesthesia was induced with 1-2mg/kg propofol, 1-2mg ketamin, 0.1mg/kg vecuronium. Ketamin 1mg/kg/hour was infused intravenously. Pressors, inotropic agents and antiarrhythmics were used as needed. The Mini MentalStateExamination(MMSE) was administered the day before surgery and three days later. The change in scores for MMSE was calculated for each patient and all the group. The results were compared statistically with paired simple t-test.
RESULTS: The mean age, CBP duration, lowest temperature was not statistically significant(Table1). Peroperative and postoperative blood pressures and pulse rates showed differences between groups. There were no preoperative differences between the groups on any of the mean MMSE score(Table2). The ECG monitoring revealed that most patients remained in sinus rhythm, with no difference between groups.
CONCLUSIONS: We could not demonstrate that intraoperatively administered ketamine resulted in greater neuroprotective effects compared with propofol. Ketamine in combination with propofol during cardiac surgery is associated with a stable hemodynamic profile. Propofol may reduce the delivery of microemboli to the cerebral circulation by decreasing the cerebral blood flow(4). Propofol has a direct neuroprotective effect in vitro, although Roach et al. could not demonstrate a protective effect of propofol during open-heart surgery(5). Propofol enhances the antiinflammatory response to surgery by several mechanisms(6). This might have masked a neuroprotective effect of ketamine because propofol was administered in both groups in our study.

PP-269 THE USE OF LINEZOLID IN MEDIASTINITIS THERAPY

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OBJECTIVE: Mediastinitis is a frightining complication of cardiac surgical procedures.The results of additional Linezolid use plus vancomycin due to failure of vancomycin alone in the theraphy of mediastinitis of a patient after coronary bypass surgery has been argued in this study.
METHODS:74 years old patient with Type two Diabetes Mellitus and hyperlipidemia was hospitalized due to slight redness and minimal seropurulant oozing at the site of sternotomy incision after 12 days of triple vessel coronary bypass surgery.Vancomycin resistant MRSA was emerged in the wound material.Daily debridement and irrigation at the wound site as well as vancomycin treatment initiated immediately.The patient was undergone revision surgery in order to open chest, cleaning all sutures and wires as well as debriding all necrotic tissues.Treatment was continued with open cleaning and debridement.Vancomycin was stopped and Linezolid started due to belief in failure of clinical progression in the theraphy at 15th day of treatment.On fifth day of linezolid theraphy, clinical improvement of decreasing purulant oozing and general wellbeing of the patient was observed. Necrotic tissues were debrided and sternum closed thereafter.
RESULTS: The patient was discharged on the fourteenth day of Linezolid treatment.
CONCLUSIONS: Linezolid is a member of a new group called oksazolidinon manufactured as totally syntetic one.Oksazolidions inhibit protein syntesis by being bound 50S ribosomal subunit.It profoundly activates against all gram positive pathogens such as meticillin resistant staphylococcus,penicillin resistant pneumococcus,macrolid resistant streptococcus and even vancomycin resistant enterococcus.Even if there is combined theraphy of vancomycin and linezolid, we use only linezolid in cases of MRSA Mediastinitis not enough responsive to Vancomycin in order to avoid potential side effects.

EXPERIENCES IN MEDICAL AND SURGICAL MANAGEMENT OF VALVULAR HEART DISEASE – POSTER PRESENTATION

PP-273 CO-INCIDENCE OF MITRAL INFLOW AND LEFT VENTRICULAR OUTFLOW OBSTRUCTION RELATED WITH HUGE CASEOUS MITRAL ANNULAR CALCIFICATION AND SIGMOID INTERVENTRICULAR SEPTUM

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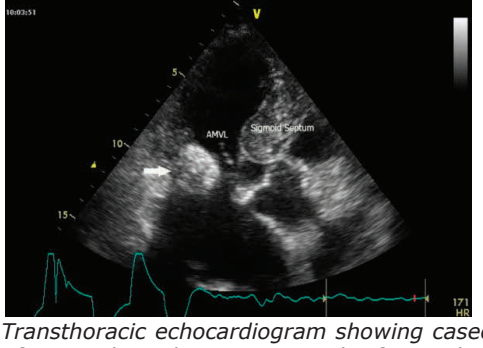
OBJECTIVE: Sixty-eight-year old female patient was referred to our department with exertional dyspnea, angina and syncope. On physical examination, severe systolic murmur at the left upper parasternal border and moderate diastolic murmur at the cardiac apex were detected. Transthoracic echocardiography revealed that hyperdense, ovoid shaped, calcific mass which was 3.5x2.7 cm in size and located in posterior periannular region(Fig.1). Moderate mitral inflow and severe left ventricular outflow obstruction were detected between calcific mass, anterior mitral valve leaflet and sigmoid interventricular septum. Pressure gradients were measured 16/7 mmHg and 155/61 mmHg respectively.Sigmoid interventricular septum thickness was 20 mm. Posterior mitral valve leaflet could not visualised by transthoracic echocardiography. Huge calcific mass was covering posterior periannular region. The patient has undergone cardiac surgery. Heavily calcified liquid material was removed and 24 mm mechanical prosthetic valve was implanted. Posterior leaflet of mitral valve was not also observed due to calcific dejeneration. In microscopic findings, caseous calcification and degenerative necrosis were detected. According to pathologic report caseous calsification of mitral valve is diagnosed. Follow up period after surgery was uneventfull. Mitral annular calcification (MAC) is a degenerative process that occurs mainly in elderly individuals. Although MAC is common in geriatric and hypertensive population, caseous calcification of mitral valve is a relatively rare condition. Prevalence of caseous calcification is 0.6% in patients with mitral annular calcification and 0.06% to 0.07% in large series of patients of all ages. Caseous calcification should be differentiated from an abscess or tumor but that is impossible without pathologic examination. Our case is unique because of anterior mitral valve leaflet between two obstructions. It was found that huge caseous calcification mainly caused mitral inflow obstruction and also dynamic left ventricular outflow obstruction by sigmoid septum was responsible for syncope. To our konwledge combination of left ventricular outflow and mitral inflow obstructions related with caseous calcification is the first report in the literature. If the patient with caseous calcification has sigmiod septum, physician should be careful for dynamic left ventricular outflow obstruction in addition to mitral inflow obstruction and continuous-wave Doppler echocardiography should be evaluated cautiously.

Figure



Transthoracic echocardiogram showing caseous calcification of mitral valve in apical five chamber view(by arrow).AMVL;Anterior Mitral Valve Leaflet.

PP-275 RE-REPLACEMENT OF SUPRA-ANNULAR MECHANICAL MITRAL VALVE

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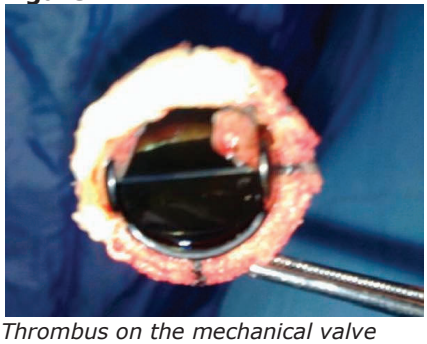
OBJECTIVE: Congenital mitral valve disease is a rare pathology with high morbidity and mortality which is accompanied by other anomalies. Re-operation risk is high in early stages of this disease and operation is usually compulsory in neonatal and infantile period. In this study, we assesed the re-operation of a 15 year old female patient who had undergone supra-annular mitral valve replacement 11 years ago.

Figure



Thrombus on the mechanical valve

PP-287 PREVENTION OF SUTURE RELATED COMPLICATIONS IN THE SUPRAANNULAR AORTIC VALVE REPLACEMENT: A DIFFERENT KNOT TECHNIQUE

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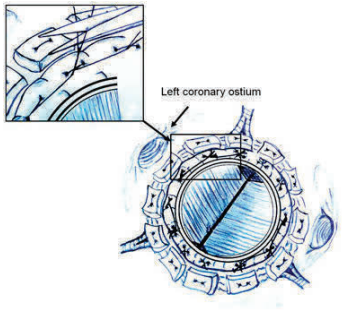
OBJECTIVE: The distance between coronary ostiums and prosthetic valve decrease in supravalvular aortic valve replacement. Coronary osteal stenosis may develop due to thrombosis in early and late terms after supraannular valve replacement or inferior dislocation of the coronary ostium. One of the factors affecting the development of coronary osteal thrombosis is foreign body reaction made by sutures in coronary ostium. We are reporting A novel knot technique we have applied in supraannular aortic valve replacement.
METHODS: Supraannular aortic valve replacement performed with our knot technique in two patients due to aortic stenosis. In the operation, after the standart oblique aortotomy and the resection of the diseased leaflet tissue, it was evaluated that 21 no aortic valve could only be placed in a supraannular position. 2/0 ethibond valve sutures were put on the supraannular region. After the prosthetic valve was placed, it was decided that sutures should be tied for avoidind the sutures movement to the coronary ostium in every diastole.
Suture tying procedure was started from closest suture to the left main coronary ostium. First suture was not cut after being normally tied. While the suture which was lateral to the suture was tied, the first suture was put under the second suture knot and then the second knot was seated and the first suture was fixed. After the second suture was seated, first suture was cut. The second suture was not cut and the same procedure was reapplied (Figure). Same technique was applied to the suture which was medial to the left main coronary artery (LMCA) ostium. After the valve was checked, aortotomy was sutured primarly and cardiopulmonary bypass was disconnected.
RESULTS: There wasn't any complications in the postoperative period and patients were discharged in the 6th postoperative day. ECGs of the patients which were taken in the 1st, 3rd and 6th postoperative months were evaluated as normal. Also prosthetic valve functions were evaluated as normal in the echocardiograpic examinations.
CONCLUSIONS: Supravalvular aortic valve replacement is the frequently-preferred method due to its ease of application, with low perioperative mortality and morbidity rates especially in high-risk patients. With the knot technique we have reported, we aimed to decrease the risk of foreign body reaction which might cause coronary osteal stenosis in the long term. This technique also performed in the inferiorly located coronary ostium.

Figure



Suture connection started just inferior of the left main coronary ostium. First suture was connected but not cut. While the second suture was connecting, the first suture was put under the second suture knot and the second knot was seated. The first suture was cut after fixing under the second suture knot.

PP-288 HEYDE'S SYNDROME: CASE REPORT

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OBJECTIVE: In this study we report the case of Heyde's syndrome and discuss the pathophysiological bases and potential therapies for this syndrome.
METHODS: Gastrointestinal (GI) bleeding due to colonic angiodysplasias can be associated with calcifying aortic stenosis (AS). The coincidence has been known for many years as Heyde's syndrome.
RESULTS: The pathophysiologic link between both entities is explained in new studies as patients with severe aortic stenosis have decreased percent HMWM and platelet dysfunction. And the high prevalence of colonic angiodysplasia in these patients may be associated with decreased gastrointestinal perfusion

secondary to severe aortic stenosis, thereby leading to dilation of blood vessels induced by hypoxia, and genesis of angiodysplasia.
CONCLUSIONS: Aortic valve replacement can prevent recurrent GI bleeding in these cases.

PP-289 EVALUATION OF THE CASES WITH CRITICAL AORTIC STENOSIS AND ENDOCARDIAL FIBROELASTOSIS IN WHOM BALLOON VALVULOPLASTY WAS PERFORMED

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OBJECTIVE: Our purpose was to evaluate the findings of four cases with critical aortic stenosis and endocardial fibroelastosis in whom balloon valvuloplasty was performed.
METHODS: Four cases who were diagnosed as critical aortic stenosis and endocardial fibroelastosis between January 2009 and December 2011, and in whom balloon valvuloplasty was performed successfully were evaluated.
RESULTS:. Three of the patients were male whereas one was female. Two patients were 2 days old, one was 1 day old, and one was 3 months old. All of the cases had left ventricular dysfunction and endocardial fibroelastosis. In all of them, heart failure findings like tachypnea, tachycardia and hepatomegaly were present. Two of the newborns and the 3-month-old infant had ductus-dependant systemic circulation, and in all of these three cases, metabolic acidosis was present. In one of the newborns aged 2 days, the ductus was closed. Aortic pressure gradient measured during cardiac catheterization was 20-50 mmHg before balloon valvuloplasty whereas it was 4-13 mmHg after valvuloplasty. The diameter of the aortic annulus of the newborn cases was between 5 and 5.5 mm whereas it was measured as 5.6 mm in the 3-month-old infant. The diameter of the balloon was 5 X 2 mm in three cases whereas it was 5 X 3 mm in the 3-month-old infant. Numed balloon was used in all the patients. In one of the 2-day-old patients and in the 3-month-old infant, restenosis developed after 16 days and 2 months, respectively, and balloon valvuloplasty was performed for the second time in these patients. In one of the patients, minimal aortic regurgitation was shown whereas two cases had first-degree and one patient second-degree regurgitation. In all cases who were followed up for a period of 3-24 months (mean: 11 months), left ventricular functions improved.
CONCLUSIONS: In patients with critical aortic stenosis accompanied by endocardial fibroelastosis, the choice of small-sized balloon decreases the mortality by preventing the development of aortic regurgitation. In case endocardial fibroelastosis accompanies critical aortic stenosis, the mortality increases significantly. Mortality rates of 25-100% have been reported in the literature. We think that the most important factor affecting the mortality was the choice of small-sized balloon in our cases.

PP-290 THE SURGICAL MANAGEMENT OF AN ABSCESS AND PSEUDOANEURYSM AT THE AORTO-MITRAL JUNCTION PRESENTING AS A COMPLICATION OF INFECTIVE ENDOCARDITIS: CASE REPORT

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OBJECTIVE: Left ventricular outflow pseudoaneurysms are rare catastrophic complications of aortic valve endocarditis, chest trauma and aortic valve surgery. They are generally found located at the aortico-mitral intervalvular fibrosa. The prognosis is poor due to the risk of rupture, peripheral embolisation and possible injury to the aortic or mitral valve. Among patients with infective endocarditis, the reported incidence of perivalvular abscess at surgery or autopsy has ranged from about 30 to 40 percent. Abscess along with pseudoaneurysm formation is an extremely rare condition. Here, we discuss a 52 year old patient presenting with abscess and pseudoaneurysm at the aorto-mitral junction secondary to infective endocarditis causing in abscess which was diagnosed using transesophageal echocardiography (TEE) and treated surgically.

PP-291 AORTIC BIOPROSTHETIC VALVE THROMBOSIS IN AN ELDERLY PATIENT

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OBJECTIVE: The low requirement of antithrombotic therapy is one of the most preferred charecteristics of bioprosthetic heart valves, but controversial since there is still risk of valve thrombosis and systemic thromboembolism. During the first postoperative year, chronic thrombosis occur in at least 1% of bioprosthetic aortic valves. Despite published guidelines, there are varying protocols in different medical centers including Vitamin K antagonists and/or asetylsalicylic acid for 3 months. After 3 months Vitamin K antagonists are stopped and lifelong acetylsalicylic acid is given. Some centers do not employ any antithrombotic or antiaggregant therapy.
METHODS:A 77-year old male patient was referred to our hospital with dyspnea and chest pain. Coronary angiography revealed multivessel coronary artery disease and aortic stenosis. Echocardiography revealed aortic stenosis with 93/50 mm Hg gradient. He had moderate to severe chronic obstructive pulmonary disease and was given bronchodilator treatment for 3 years. Bioprosthetic aortic valve replacement with 21 mm St. Jude Medical porcine bioprosthesis and concurrent triple vessel bypass was performed. The patient was discharged on the postoperative 7th day. Warfarin and acetylsalicylic acid was given for the first three months. He admitted to our hospital on first postoperative month

for routine control. He had dyspnea and palpitation. He did not use warfarin intentionally, but asetylsalicylic acid. Echocardiography revealed thrombosis on the bioprosthetic valve, limited cusp movement was noted and there was 129/90 mm Hg gradient formation. The patient was taken to operation room urgently. Under general anesthesia median sternotomy was performed after femoral arterial and venous cannulation and establishment of CPB. Following cardioplegic arrest, vertical aortotomy was performed. Thrombus formation was seen on the bioprosthetic valve.Thrombus was removed. The patient was taken to intensive care unit with high dose inotropic support. Repiratory problems due to existing pilmonary disease complicated the postoperative course. Cardiac arrest developed on the postoperative 22nd hour, and there was no response after 1 hour of resuscitation.
RESULTS: Bioprosthetic valve thrombosis was detected due to disuse of anticoagulant therapy. The patient was operated for thrombectomy on an emergent basis, but died on the first postoperative day.
CONCLUSIONS: Despite the low anticoagulation requirement for bioprosthetic valves, still valvular thrombosis and valve related thromboembolic events can occur. These complications lead to major morbidity and mortality. There is controversy about the anticoagulation and anti-aggregant regimens. We routinely recommend warfarin and asetylsalicylic acid in the first three months and acetylsalicylic acid lifelong in order not to face catastrophic thrombosis related complications.

PP-292 BRUSELLOZ; A RARE ETIOLOGIC FACTOR OF AORTIC VALVULAR DISEASE

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OBJECTIVE: Brucella bacteria, causes a special form of infectious disease named Bruselloz. Any organ system may be affected, especially osteoarticular part (sacroileitis), is the most commonly affected site. Involvement of the cardiovascular system is relatively rare. As seen in other pathogens causing infective endocarditis, the mortality rate of Brucella-related endocarditis is higher even if modern therapeutic methods such as the latest generation of antibiotics and surgical techniques are used. Because of limited data about Brucella endocarditis, there weren't any consensus on antibotic terapy and its duration. In our country, where agricultural and animal breeding occupation is widespread, Brucella infection may be seen and can rarely form thickness, calcification and vegetations in native aortic valves which causes regurgitation and/or stenosis in dairy and slaughterhouse workers. In this paper a serologically Brucella positive dairy worker who had a successfull aortic valve replacement surgery with specific antibiotherapy is assesed.

PP-293 PULMONARY VALVULAR STENOSIS AND PULMONARY ARTERY ANEURYSM IN A BEHCETS PATIENT

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OBJECTIVE: Behcet's disease is a chronic, recurrent, systemic disease that is characterized by oral and genital ulcers and oculocutaneous inflammatory lesions. Cardiovascular involvement especially large artery involvement is a serious and vital complication of BD. Here we present a Behcets Disese patient operated because of severe pulmonary valve stenosis and a big main pulmonary artery aneurysm.
METHODS:A 55 years old male referred to our hospital with exertional dispnea that occured in the last six months. Transthoracic and transeosephageal echocardiography revealed a severe pulmonary infundibular, valvular stenosis and a dilatation in the main pulmonary artery. On cardiac catheterization there was a 100 mmHg gradient between the right ventricle and the main pulmonary artery; main pulmonary artery trunk was dilated up to 48mm. And there were aneurysms in the right coronary artery and the left main coronary artery without any severe stenosis.
RESULTS: The patient referred to our clinic for operation. His physical examination revealed recurrent oral ulcers and his blood tests showed that he was HlaB5 (+). The patient underwent a successful operation for pulmonary infundibulary, valvular stenosis and main pulmonary artery aneurysm. Right ventricular outflow tract is reconstructed by using fresh pericardial patch and pulmonary valve commissurotomy, and main pulmonary artery trunk is plicated. Postoperative period was uneventful and echocardiography before the discharge revealed 18 mmHg between the right ventricle and the main pulmonary artery.
CONCLUSIONS: As far as our review in literature this is the first Behcets disese patient with a combination pulmonary stenosis, main pulmonary artery aneurysm and main coronary artery aneurysms.
As a conclusion, diagnosis of BD should always be considered in patients who present with main pulmonary artery aneurysm or multiple arterial aneurysms especially in patients from Mediterranean region or Asia

PP-295 HTEA AND HYPOTHERMIC CONDITIONS; ON-PUMP MINIMAL AORTIC VALVE REPLACEMENT

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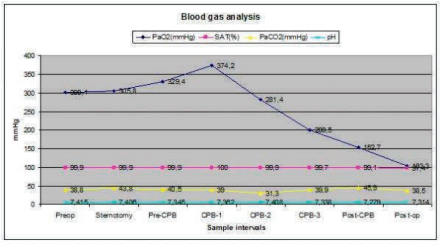
OBJECTIVE: We have reported a conscious patient undergoing HTEA for minimally invasive aortic valve replacement (AVR), who was inadvertently cooled to moderately hypothermic temperatures without deleterious effects.
METHODS: Patient was sedated with 1mg IV midazolam and 10mg ketamin. Epidural catheter was inserted at the Th2-3 interspace using loss of resistance technique.
A Straight 7cm mini sternotomy was made. After anticoagulation, 22Fr catheter was placed on the ascending aorta, and a 32-40Fr two stage catheter was placed in the right atrium. Then CPB was started and the patient was cooled to 340C as planned before. Although 5ml bolus doses of ephedrine were administered twice, blood pressure remained low despite a CPB flow of 2.4lt/min/m2. A decision to cool the patient to 28oC was made. At 320C, spontaneous breathing stopped, at 280C he was still conscious and opened his eyes to verbal stimulations and answered questions appropriately with a fonatic vocal tone. There was no apparent tremor, shivering or patient discomfort. Bolus doses of bupivacaine and fentanyl (4.5ml 0.5% marcaine+25mcg fentanyl) were given from epidural catheter at 30 minutes intervals. After valve replacement, patient was heated gradually to 360C. After cross clamp removal (ACC: 78dk), heart started at sinus rhythm with bradicardia (45-50/min). At this time patient could breathe with verbal stimulations. With pulse oxymetry, saturation, PO2 and blood gas analysis; CPB flow was decreased gradually and then was stopped. The patient remained conscious through out the operation and respiratory support was not required. Operation time was 117 minutes. Changes at blood gases during operation are shown in Fig 1.
RESULTS: In our case, the operation was initially planned at 340C under mild hypothermic conditions, but due to low blood pressures despite adequate pump flow we felt hypothermia would provide additional cerebral protection. The patient was cooled to a moderate hypothermic temperature of 280C. During the cooling period, general anesthesia was not preferred, because patient remained alert, there was no shivering reaction and he specifically did not want endotracheal intubation. The patient was not sedated postoperatively. He could recollect all the events that occurred during the operation and he did not complain of any unpleasant sensations such as shivering or being cold.
CONCLUSIONS: In conclusion, this inadvertent case of hypothermia at 280C, demonstrates that the patient can remain conscious and alert at these temperatures. This experience may encourage the use of hypothermia with HTEA during on pump cardiac surgery, if necessary.

Blood gas analysis



Changes at blood gases during operation.

ARRYTHMIAS, PACING AND ELECTROPHYSIOLOGY: SHORT COMMUNICATIONS – POSTER PRESENTATIONS

PP-326 ABLATION OF PREMATURE VENTRICULAR CONTRACTIONS OF EPICARDIAL ORIGIN WITHIN THE CORONARY SINUS

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OBJECTIVE: The quality of life may be significantly impaired in patients with ventricular premature contractions (VPC), especially when they are frequent. Endocardial radiofrequency (RF) ablation can be done successfully in most patients. VPCs may rarely be originate from epicardial site. In this article, we present a patient with VPC originating from an epicardial site that was ablated within the CS successfully.
METHODS:31-year-old man was admitted to our hospital with palpitation. ECG showed unifocal VPC's. VPCs were characterized by inferior axis and left bundle branch block pattern with a precordial transition zone at V3. Transthoracic echocardiography findings were within normal limits. Exercise test was normal except for VPCs. Despite beta-blocker, calcium channel blocker, and propafenone therapy, the patient's symptoms did not improve. Holter ECG demonstrated very frequent, unifocal VPCs including couplets and bigemines despite antiarrhythmic therapy. We attempted electrophysiological study and catheter ablation for frequent VPCs. A decapolar and a quadripolar catheters inserted into appropriate position. Because we could not induce ventricular tachycardia, we decided to map VPCs. An epicardial focus was suspected due to a pseudo delta wave in the precordial leads and a prolonged maximal deflection index (MDI= time from onset of QRS to the maximal deflection / QRS duration). The decapolar catheter was advanced to very distal within the CS (to anterolateral region). The earliest ventricular activation recorded at distal CS. A left coronary angiography was done and left aortic cusp was mapped by ablation catheter. Here, ventricular activity was earlier at distal CS than left aortic cusp. Local activation time was 50 ms earlier than

ventricular activation at the ECG. No phrenic nerve stimulation was seen during high output pacing from distal CS. Coronary angiography was performed before ablation to show the relation between ablation site and epicardial coronary arteries. RF ablation (20 W; 60°C) was applied within the CS. VPCs were disappeared immediately. After RF ablation, the patient did not have any symptom and Holter ECG were normal 2 weeks later.
CONCLUSIONS: Epicardial origin should be considered in patients who had unsuccessful endocardial ablation attempts and who has pseudo delta wave and prolonged MDI at the surface ECG. RF ablation can be applied within the CS successfully for VPCs of epicardial origin.

PP-327 LEFT VENTRICULAR PERFORATION DUE TO MALPOSITION OF THE EXTERNAL PACEMAKER LEAD

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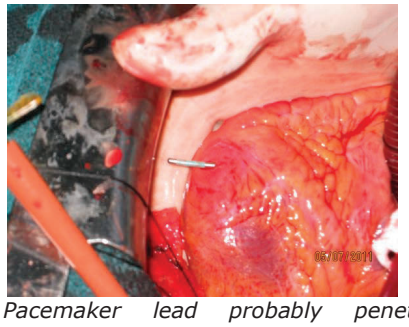
OBJECTIVE: Cardiac perforation after pacemaker or implantable cardioverter-defibrillator (ICD) implantation is an infrequent complication (0.1-0.8%). The perforation may lead to longer hospital stays, pacing failure, cardiac tamponade, cardiogenic shock and death.
METHODS:A 57 year old male patient admitted to emergency department with severe chest pain. ECG showed ST segment elevation in anterolateral derivations. Blood tests showed mild elevation of troponin. He had the history of primary percutanous intervention to circumflex (Cx)and right coronary artery (RCA) 6 months ago. Coronary angiography revealed total stenosis of left anterior descending (LAD) coronary artery and critical stenosis in the Cx and the RCA. After stent implantation to the stenosis,he developed complete atrioventricular block which is resolved by implantation of an external pacemaker lead in right ventriclle. After he spent two hours in intensive care unit, it has been observed that the external pacemaker is missing its' pacing function. Moreover the while it is not missing, pacing may be seen only over the left ventricular free wall in electrocardiogram. Computed tomographic imaging showed ventricular perforation through the left ventricular apex. No haemodynamical problem occured for 36 hours in which the effect of given antiplatelet drugs prior to the stenting. Repetetive complete blood counts (CBC)were made for not missing any occult bleeding. Coronary artery bypass grafting for four vessels has been carried out with left ventricular repairment following the removal of the lead caused the perforation.
RESULTS: Management strategy would be dependent on the existence of active bleeding, haemodynamic instability or fatal arrythmias. Surgery is generally recommended when cardiac tamponade is expected strongly during extraction, the initial presentation is cardiac tamponade, or the location of the migrated lead is atypical. If a case is presented with pericardial effusion, surgical management with coronary revascularization will be the optimal treatment. If an antiplatelet recieving and heamodynamically stabile patient has no pericardial effusion, can be observed under the of careful monitoring including electrocardiography and echocardiography. Repetetive CBCs must be done prior to surgery.
CONCLUSIONS: Cardiac perforation after pacemaker or ICD implantation is an infrequent complication. The clinical manifestations are variable. If there is a conduction or pacing abnormality after the implantation, reimplantation or manipulating can only be done after revealing the localization of the pace lead. Pulling the lead may cause quickly deterioration of haemodynamic parameters due to the ventricular perforation and haemopericardium. During the postoperative period, close observation with echocardiography should be performed because of delayed development of cardiac tamponade.

Ventricular perforation



Pacemaker lead probably penetrated through the interventricular septum and perforated left ventricular apex. The lead is seen more posterior to the left anderior descending coronary artery.

PP-328 CORONARY SINUS; A WAY OF LEFT VENTRICULAR PACING IN A PATIENT WITH TRICUSPID VALVE REPLACEMENT

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OBJECTIVE: One of the complications of tricuspid valve replacement(TVR) is the bradyarrhytmias that frequently require permanent pacing with epicardial or endocardial implantation.Transvenous endocardial pacemaker implantation is contraindicated for patients after prosthetic tricuspid valve replacement. In these patients epicardial permanent pacemaker is frequently used through an anterolateral thoracotomy or sternotomy but there is concern with higher thresholds and limited lead survival.The other significant problems are tissue adherance and ventricle injury during dissection. We report a case of left ventricular pacing via the coronary sinus(CS) after prosthetic TVR.
METHODS:A 56-year old women who suffered from syptomatic bradyarrhytmia was implanted a permanent pacemaker with a left ventricular pacing lead via anterolateral coranary vein.She had a history of rheumatic heart disease and she underwent tricuspid valve replacement with a St.Jude

valve because of severe tricuspid regurgitation 28 years ago. She was admitted to our department with episodes of presyncope and shortness of breath. Blood pressure was 102/64 mmHg and heart rate was 42 beat/minute. Physical examination was normal. The electrocardiogram showed idioventricular rhytm.(Figure1). Then,we considered transvenous endocardial pacemaker implantation. She underwent coronary sinus catheterization via the left subclavian vein.After accesing the left subclavian vein guiding catheter was placed into the ostium of coronary sinus(CS) and a coronary sinus angiography was performed. The unipolar endocardial pacing lead was positioned into the anterolateral coronary vein to stimulate the left ventricle.

RESULTS: After implantation,electrocardiogram showed pace rhytm and there was no lead dislodgement. The patient had a good recovery and was discharged 2 days later. Follow-up examination 30 days later detected,a ventricular pacing threshold of 1.4 V at 0.4ms and a R-wave sensing of 7.1mV The patient was asymptomatic.

CONCLUSIONS: To conclude,ventricle pacing through the coronary vein is safe, provides a minimally invasive procedure and improves the cardiac function.Therefore, LV pacing via coronary vein in a patient with a mechanic tricuspid valve should always be considered first choice who requires permanent ventricular pacing.

Position of the lead in the anterolateral branch of coronary sinus

PP-329 RECURRENT PACEMAKER LEAD THROMBOSIS IN A PATIENT WITH HETEROZYGOUS MUTATION OF MTHFR

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OBJECTIVE: Pacemaker (PM) leads are known to be predisposing factors for the thrombosis. Here, we report a rare case of a 58-year-old man with heterozygous methylenetetrahydrofolate reductase (MTHFR) mutation who developed recurrent pacemaker lead thrombosis and successfully treated by slow infusion of recombinant-tissue plasminogen activator (r-tPA).

METHODS:A 58-year-old male patient who had diagnosis of chronic heart failure and diabetes mellitus was presented with the complaint of dyspnea and palpitation. The patient had a permanent pacemaker (VVI–R) that was implanted 5 years ago. The patient was receiving 100-mg acetylsalicylic acid daily and carvedilol 12.5 mg daily as well as 5 mg warfarin daily but, the value of international normalized ratio (INR) was not effective. In addition to this, he had been treated by streptokinase and discharged because of PM lead thrombosis in another hospital two months ago. His blood pressure was 100/70 mmHg. Heart auscultation revealed a systolic murmur in the tricuspid focus. Electrocardiogram showed atrial fibrillation with left bundle branch block. Echocardiography revealed a large right atrial thrombus and moderate tricuspid valve regurgitation (Figure 1). Transesophageal echocardiography (TEE) demonstrated a large right atrial thrombus attaching to PM lead and extending into the right ventricle during diastole. Surgical treatment was advised because of the large dimensions and mobility of the thrombus. The patient refused the surgery. We decided for therapeutic approach and started intravenous r-tPA for directly application of 15 mg bolus followed by 35 mg infusion in 12 h. Treatment with continuous infusion of heparin (aPTT 60-70 msc) in addition to r-tPA was ordered. After 12 hours, the thrombus was moderately smaller on echocardiography. Therefore, we decided to give an additional dose of 50 mg tPA in following 12 hours. Follow-up echocardiography revealed that right atrial thrombus attached to a permanent pacemaker lead was completely resolved at the second day of therapy. The patient's symptoms improved markedly after treatment. He was discharged with warfarin, acetylsalicylic acid (300 mg per day), carvedilol and furosemide. The INR value was set to be 3-3.5. We performed thrombophilia screening tests for methylenetetrahydrofolate reductase (MTHFR) C677T polymorphism, Factor II, Factor V Leiden mutations (G1691A), plasminogen activator inhibitor-1 by polymerase chain reaction. It revealed heterozygous MTHFR gene mutation.

CONCLUSIONS: Heterozygous MTHFR gene mutation has increased risk of thrombosis in patients with PM lead. The slow infusion of r-tPA is effective and safe in the treatment of right atrial thrombus associated with PM lead.

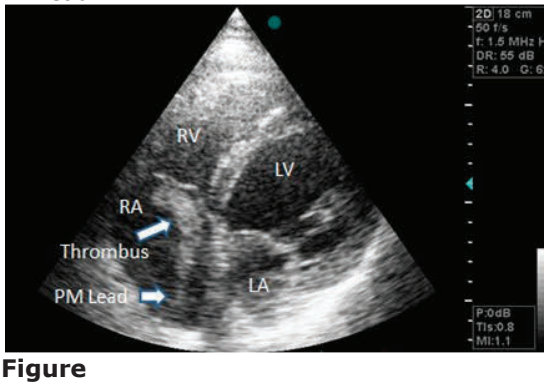

Figure
Transthoracic echocardiogram showing a large, mobile thrombotic mass in the right atrium (RA) RV: right ventricle, LV: left ventricle, LA: left atrium, PM: Pacemaker.

HEART FAILURE: ETIOLOGY, THERAPEUTIC SOLUTIONS – POSTER PRESENTATION

PP-340 DUCHENNE MUSCULAR DYSTROPHY: HOW BAD IS THE HEART?: A CASE REPORT

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OBJECTIVE: Cardiac dysfunction is a frequent manifestation of Duchenne muscular dystrophy (DMD) and a common cause of death for individuals with this condition. Early diastolic dysfunction and focal fibrosis proceed to dilated cardiomyopathy (DCM), complicated by heart failure and arrhythmia in most patients. In this case, we presented a 18-year-old male patient with a DMD complicated with DCM.
METHODS:CASE: An eighteen year-old male patient with a history of DMD for 12 years referred to the hospital for evaluation of progressive dyspnea, palpitation and chest pain. His blood pressure was 100/70 mmHg and heart rate was 94 beats/minute;a 2/6 degree apical pansystolic murmur was heard in the examination. Gower's sign were observed. The patient's functional capacity was IV according to the New York Heart Association classification. Heart and mediastine were enlarged on the chest X-ray. Electrocardiography showed sinus rhythm, normal axis and 0,5 mm ST segment depression in the V4-6 derivation. Corrected QT interval was 406 miliseconds. Two dimensional echocardiogram revealed a moderate mitral regurgitation and dilated left ventricle with reduced contraction (EF: 20%). Holter ECG monitoring was unremarkable. His sister also had DMD without cardiac involvement. The patient was on metoprolol, furosemide and ramipril treatment on admission.After methylprednisolone administration, slight elevation in ejection fraction and clinical improvement were observed.
CONCLUSIONS:DMD is the most common childhood form of muscular dystrophy.It results from mutations in the gene encoding dystrophin, a sub-sarcolemmal protein that plays a key role in plasma membrane integrity and in linking the extracellular matrix with cytosolic signaling.In both cardiac and skeletal muscle, dystrophin protects cardiomyocytes against contraction-induced damage.Cellular repair mechanisms and regeneration are generally insufficient, yielding progressive loss of skeletal myofibres and cardiomyocytes.This condition segregates in families with an X-linked pattern of inheritance, though approximately 25% of cases are due to de novo gene mutations.The cardiomyopathy that develops in DMD is characterized by normal or thinned left ventricular (LV) wall thickness and progressive decline in ejection fraction or fractional shortening. Variable degrees of LV dilation occur. Abnormal LV relaxation has also been identified as an early manifestation in DMD.Treatment using β adrenergic blockade and inhibition of angiotensin-converting enzymes has been shown to be effective in promoting favourable remodelling.Management of cardiac arrhythmias presents challenges in the DMD patient.Steroid treatment, begun prior to ventricular dysfunction retards the anticipated development of ventricular dysfunction as shown in this case.The patient is currently on follow up with acetylsalicylic acid, metoprolol, ramipril, furosamide and methylprednisolone treatment.

Figure-1

Two dimensional echocardiogram showing moderate mitral regurgitation and dilated left ventricle with reduced contraction

PP-341 BIVAD AND ECMO FOR BRIDGE TO RECOVERY IN PERIPARTUM CARDIOMYOPATHY

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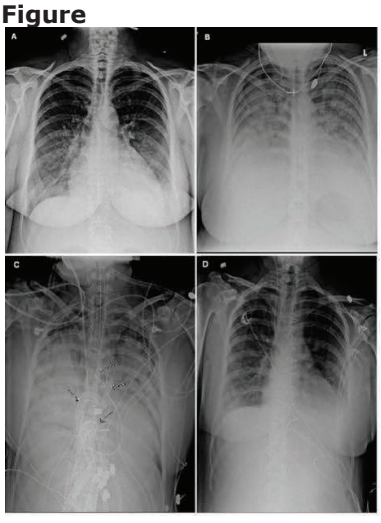
OBJECTIVE: Early diagnosis & management of Peripartum Cardiomyopathy (PPCM), a rare idiopathic form of nonischemic CM, prevents major adverse events e.g. prolonged mechanical circulatory support, cardiac transplantation, or death (30%). We report the use of temporary biventricular mechanical assistance (BIVAD) alongwith with extracorporeal membrane oxygenation (ECMO) as bridge to recovery for this fatal condition. This combined strategy for PPCM is never reported.
METHODS:32-year-old female Gravida 3, developed dyspnea on 5th day after delivering twins via c-section at 37 weeks gestation for prolonged tocolysis. She had pre-eclamplsia & mild peri-partum pulmonary edema earlier.(Fig 1A) She was readmitted with pulmonary edema,LVEDP of 50 & PCWP >35.(Fig 1B) TEE revealed moderate RV & severe LV dysfunction with EF 10%. She continued to decompensate, requiring intubation and inotropic support. When the use of an IABP failed to stabilize the patient, the decision was made to place her on BIVAD and ECMO. The circuit consisted of two CentriMag centrifugal pumps and a Quadrox D membrane oxygenator in RVAD circuits (figure 1C).
RESULTS: On day 5, the patient met the weaning criteria and was successfully removed from BIVAD & ECMO.(Figure 1D) Her LV EF improved to 55% and she was discharged on 11th day on Carveilol, ACE inhibitors, Coumadin and Bromocriptine.

CONCLUSIONS: The demographics (multiparity, obesity, hypertension, smoking) and pregnancy related risk factors(twin pregnancy, pre-eclampsia, prolonged tocolysis) predisposed her to PPCM. A high index of suspicion, along with early echocardiographic confirmation of biventricular systolic dysfunction, led to timely intervention with BIVAD and ECMO and excellent outcome in this case.

Figure



PP-342 TAKOTSUBO CARDIOMYOPATHY IN A PATIENT WITH LUNG ADENOCARCINOMA

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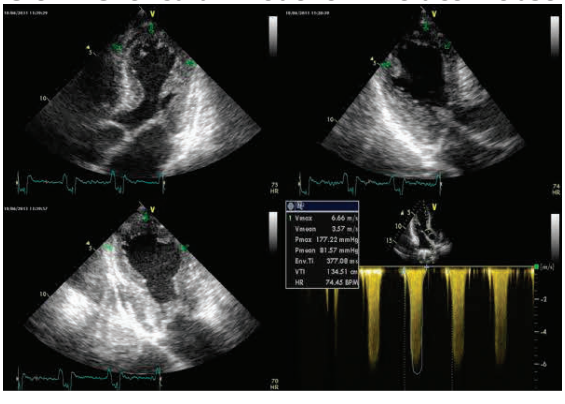
OBJECTIVE: Takotsubo cardiomyopathy is a syndrome of reversible stress-induced cardiomyopathy associated with profound emotional or physical stress. It is characterized by transient left ventricular dysfunction, apical segment ballooning and a favorable prognosis. We present a case of Takotsubo cardiomyopathy to draw attention to this rare clinical disorder.
METHODS: Case Presentation: A 59 year-old man without any history of cardiovascular disease admitted to emergency service with the complaint of chest and back pain. His electrocardiography revealed 3-4 mm ST elevations between V2 and V6. He was immediately taken to catheterization laboratory with the diagnosis of acute anterior myocardial infarction. Coronary angiography demonstrated normal coronary arteries. Ventriculography demonstrated apical ballooning which is characteristic for takotsubo cardiomyopathy. His transthorasic echocardiography demonstrated apical akinesia with a dynamic left ventricular outflow tract obstruction (peak resting gradient: 45 mmHg, peak gradient reaches to 177 mmHg and mean gradient to 81 mmHg with valsalva maneuver). ST elevations returned to baseline and his complaints were improved progressively with medical treatment. Troponin T level peaked at 0.71 ng/ml. Patient was cachectic and had complaints of dysfagia with weight loss of 10 kg during the last 6 months. Endoscopic examination revealed esophageal obstruction due to compression and chest computed tomography revealed a mass with 5 x 2.5 cm diameter at the level of right pulmonary upper lobe posterior segment extending from retrotracheal to paravertebral space with bone invasion. There were also multiple mediastinal lymphadenopathies. Fine needle aspiration biopsy obtained from mass showed neoplastic cells and he had the diagnosis of lung adenocarcinoma. Repeat transthorasic echocardiographic examination performed 10 days after admission revealed complete resolution of left ventricular systolic functions and disappearance of left ventricular outflow gradient.
CONCLUSIONS: Takotsubo cardiomyopathy should be considered in the differential diagnosis of STEMI patients with normal coronary arteries. Ventriculography is useful in the diagnosis and should be performed especially in patients with acute coronary syndrome who suffer emotional or physical stress recently.

Echocardiographic images of the patient demonstrating apical ballooning and dynamic left ventricular outflow tract obstruction



TRANSPLANTION AND VAD : WE NEED MORE – POSTER PRESENTATION

PP-352 LEFT VENTRICULAR ASSIST DEVICE IMPLANTATION WITH MINI PERICARDIOTOMY TECHNIQUE

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OBJECTIVE: We are reporting a patient who was implanted with a Levotronix left VAD for bridging to heart transplantation with mini pericardiotomy technique.
METHODS:A sixteen-year-old male patient with idiopathic dilated cardiomyopathy who was in end-stage heart failure and in the waiting list for heart transplantation was hospitalized for decompensation. When he deteriorated further, we decided to implant LVD.The information about the complications of assist device and its alternatives was given to the patient, and written informed consent was taken from him. On the operation, after sternotomy, residual thymus tissue was removed. The right pleura were opened completely. After seeing the right phrenic nerve, pericardial incision was made through the RSPV and pericardial slings suspended from both sides. (Picture 1).After that pericardial

incision was made through the distal ascending aorta and pericardial slings suspended from both sides. After providing systemic heparinization (ACT 200-250 sec to be) we put double purse strings with pledges to the ascending aorta and distal RSPV. Outflow cannula is inserted to the distal ascending aorta while the inflow cannula was put to the left atrium behind RSPV. The cannulas were tunneled out of the mediastinum. Drains were inserted into the right thorax and mediastinum, and the sternum was closed.

RESULTS: The patient was stable during follow-up in the intensive care unit. After 2 weeks, a suitable donor was found. On transplant surgery, no pericardial adhesions were present and the cardiac exploration was done with ease. The patient was extubated 2 days after surgery.

CONCLUSIONS: In this method, as we opened the pericardium locally, we believed that the incidence of pericardial adhesion could be lower. We think that the use of mini pericardiyotomy for implantation of VAD may better prevent adhesions, bleeding and infections.

PP-353 VACUUM ASSISTED CLOSURE (VAC) FOR SKIN INFECTION IN A PATIENT WITH BERLIN HEART EXCOR BIVENTRICULAR ASSIST DEVICE

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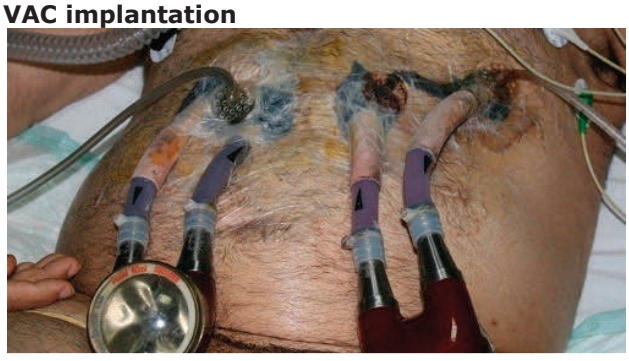
OBJECTIVE: Skin infection is a serious complication of ventricular assist device implantation. VAC is an effective tool for treatment of this complication. We have used VAC for a patient with Berlin Heart Excor biventricular assist device and successfully transplanted him.

METHODS: Fifty two year old male patient was diagnosed as congestive heart failure 8 years ago. Berlin Heart Excor Biventricular Assist device was implanted on May 2010. During periodical visits, skin infection on cannulation sites was diagnosed. In November 2010, he was admitted to our clinic with repeated skin infections on cannulation sites. VAC application was added to the treatment on March 2011. After healing of the skin infection, he was successfully transplanted on April 29th, 2011.

RESULTS: According to surgical observation during transplantation, there was no abscess formation in the mediastinum and the infection was limited to the skin and subcutaneous layers. All cannulation sites were surgically closed after excision of the VAD. The postoperative healing was successful.

CONCLUSIONS: We have applied VAC treatment in our VAD patient with major skin infection and the result was encouraging. He has survived this complication and was transplanted successfully.

VAC implantation



PP-354 SIMULTANEOUS HEART AND KIDNEY TRANSPLANTATION

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OBJECTIVE: Simultaneous heart and kidney transplantation is an accepted therapeutic option for patients with endstage heart and kidney failure, however long-term outcomes are unknown for this therapy. Herein we present early results of a simultaneous heart and kidney transplantation from the same donor which is the second successful case in Turkey.

METHODS:A hemodialysis dependent 36-year old male patient presented with severe dyspnea and fatigue. He had a history of myocardial infarction and coronary stent implantation. His functional capacity was NYHA Class IV. Trans-thoracic echocardiography revealed that ejection fraction was %15-20 with global hypokinesia. Coronary angiography was performed and ischemic cardiomyopathy was diagnosed. After the evaluation of the patient by the commission of transplantation, the simultaneous heart and kidney transplantation was decided. Both transplanted organs were harvested from the same donor. Orthotopic heart transplantation by using bicaval technique was performed. Cold ischemic, cross clamping and total perfusion times were 25, 70, 153 minutes respectively.

RESULTS: The patient was followed up for 2 hours after heart transplantation. After the stabilization of the haemodynamic parameters, the kidney transplantation was performed. Initial immunosuppression protocol of the patient included mycophenolate mofetil, steroid and antithymocyte globulin instead of cyclosporine included protocols to minimize kidney damage. Dialysis was needed in the early post-operative period. After the recovery of renal functions dialysis was stopped and antithymocyte globulin was converted to tacrolimus.

Post-operative echocardiography revealed that ejection fraction was 65%. Post-operative renal biopsy was normal. Late postoperative period was uneventful.

CONCLUSIONS: Simultaneous heart and kidney transplantation with appropriate immunosuppression protocol can be successfully used in patients with concomitant end-stage heart and kidney failure.

PP-355 TACROLIMUS-INDUCED ENCEPHALOPATHY IN A HEART TRANSPLANT RECIPIENT IN THE ABSENCE OF OVERDOSE

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OBJECTIVE: Tacrolimus is an effective immunosuppressive agent which is used to prevent organ rejection after transplantation. Mild neurological complications such as tremor, paresthesia and mild organic brain syndrome have been reported to be related with tacrolimus therapy. More severe neurological complications such as aphasia, ataxia, serious organic brain syndrome, confusion, seizures and coma have been less frequently reported. Severe neurological complications were usually observed after liver or lung transplantation and due to high tacrolimus plasma levels and predisposing factors. We are presenting an interesting case of a tacrolimus-induced encephalopathy which occurred after heart transplantation in the absence of tacrolimus-overdose.

RESULTS: Our patient was a 27-year-old male who underwent cardiac transplantation for dilated cardiomyopathy. The patient had no disease other than his cardiac condition. On the post-operative 1st day, the patient began to receive tacrolimus, mycophenolate and methylprednisolone as the immunosuppressive therapy. On the post-operative 7th day the patient presented with gradually increasing stupor, disorientation and lack of cooperation. The computed tomographic brain scan revealed no significant feature. All biochemical parameters and the hemogram were within normal limits. The maximum tacrolimus blood level which was 8.4 ng/mL, was lower than recommended therapeutic range of 10-20 ng/mL. The neurological condition was thought to be tacrolimus-induced and tacrolimus was interrupted for the subsequent two-doses. The clinical features of the patient began to improve and tacrolimus was commenced again. After the first dose of this challenge, the neurological condition of the patient got worse again and tacrolimus was totally stopped and cyclosporine was commenced instead. The patient was followed-up for the neurological clinical features and it was observed that they improved on the first-day of stopping tacrolimus and it almost totally resolved on the 3rd day. According to the Naranjo Scale (which is designed for determining the likelihood of whether and adverse drug reaction is actually due to the drug rather than the result of other factors) the condition the patient experienced was considered to be "probably" tacrolimus-induced encephalopathy. The further clinical follow-up of the patient was stable and the patient was discharged on the postoperative 5th week. Five months later clinical examination was normal and the patient had no complaint.

PP-356 HEART TRANSPLANTATION AND VENTRICULAR ASSIST DEVICES (VAD) – VILNIUS (LITHUANIA) EXPERIENCE

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OBJECTIVE: Problem of treatment of progressing heart failure remains unsolved. Most effective method – heart transplantation is unavailable for many patients, because of shortage of donors. Mechanical ventricular assist devices could prolong life of the patients, who suffer from end stage of heart failure.

METHODS: Results of 75 heart transplantations, and usage of VAD in 53 patients were reviewed, and assessment of impact of VAD on increasing possibility to survive till transplantation was made.

RESULTS: Experimental heart transplantation investigations at Vilnius University Heart Surgery Center were started in 1964. First clinical heart transplantation was performed in 1987, and till now our experience consist of 75 patients, including 6 children.

The heart transplantations were performed for patients suffering from cardiomyopathy (65%), ischemic heart disease (23%), end stage of heart valve disease (11%) and complicated congenital heart disease (1 patient).

The first VAD at Vilnius Heart Surgery Center was used in 1999. Till now, extracorporeal VAD was used for treatment of heart failure in 25 (Berlin Heart ExCor – 22, and Levitronix – 3) patients: left VAD – 12 patients, right VAD – 1 patient and bi VAD – 12 times. The implantable VAD - Berlin Heart InCor was implanted in 12 patients and Thoratex HeartMate II in 16 patients. Total experience is 53 patients. Primary heart transplantation was performed for 56 patients and VAD before transplantation was necessary for 19 patients.

The six-year survival after heart transplantation was 50% and 14-year survival was 15%. The main complications and causes of death during long-term postoperative period were rejection and malignances. The most often complications after implantation of VAD were brain embolism and infection around the cable.

CONCLUSIONS: The heart transplantation remains the most effective method of treatment of failing heart; however the biggest problem remains shortage of donors. Usage of VAD may save patients' lives and increase their possibility to survive till possibility of heart transplantation occurs.

PAH: AN INTERNATIONAL PERSPECTIVE – POSTER PRESENTATION

PP-357 PREDICTING SURVIVAL IN PULMONARY ARTERIAL HYPERTENSION IN A SINGLE CENTRE IN LATIN AMERICA

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OBJECTIVE: To evaluate middle-term survival in patients (pts) with pulmonary arterial hypertension (PAH), identify factors associated with a poor outcome and describe them.
METHODS: Of 112 pts with PAH of Group 1 of Dana Point, consecutively collected from January-2004 to july-2010, 94 pts. with idiopathic and associated PAH (congenital heart disease and collagen disease) were analyzed. Numeric variables were expressed as a percent/mean-DS or median-IIC25-75 and analyzed by chi2/Kruskal Wallis as appropriate. Kaplan-Meier curves were performed. P<0.05 was considered statistically significant.
RESULTS: Median follow up was 32,3 (IIC25-75% 19,6-51,1) months. Mean age was 38 (+/-15,3) years and 81,9% were females. Regarding aetiologies, 51 pts had idiopathic PAH and 43 pts associated PAH (27 and 16 pts with congenital heart disease and collagen disease, respectively); 46,8% was on combination therapy. Death and/or transplant rate was 35,1% (30 deaths, 3 transplants). Survival without transplant at 12, 24 and 36 months was 95%, 89% and 82%, respectively. Functional class III/IV (47,5% vs 14,2%, p=0,0011), significant right function impairment (48% vs 20,5, p=0,005), pericardial effusion (27% vs 6,6,%, p=0,005) and 6-min walk distance: 288 m (IIC25-75: 143-372) vs 384 m (IIC25-75: 267-451, p=0,007) were baseline clinical characteristics associated with poor outcome. In the follow up, congestive heart failure hospitalization (77% vs 19,1%, p<0,0001) was associated with poor prognosis. PAH associated with collagen disease showed the worst survival (92%, 69% and 69% at 12, 24 and 36 months, respectively) and pts with congenital diseases had the best outcomes: 95% at 12, 24 and 36 months, respectively; survival in pts with idiopathic PAH was 91%, 89% and 79% at 12, 24 and 36 months, respectively.
CONCLUSIONS: In our registry, the survival rate was similar to reported in currently and higher pts number registries. Easy acquired variables that allowed us to identify pts at risks of death and transplant in the middle-term.

MYOCARDIAL AND PERICARDIAL DISEASES: PROFESSIONAL SOLUTIONS– POSTER PRESENTATION

PP-360 LEFT ATRIAL MASS: THROMBUS? MYXOMA? OR BOTH?

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OBJECTIVE: Myxomas are the most common form of benign cardiac neoplasms. Surgical resection, being the only treatment option, can be life saving. On this case, we present a myxoma that is surrounded around by thrombus formation in the left atrium (LA).
METHODS: Fifty years old male patient, consulted cardiology department with shortness of breath. Upon the discovery of a myxoma related appereance via trans-thoracic echocardiography (ECHO), patient was consulted to our clinic. ECHO in our clinic, showed an ecogenic structure that was attached to the interatrial septum with a small stem, which was identified as myxoma or thrombus in the LA, with a size of 5.9x4.2cm, that moved in-and-out of the left ventricule. Trans-esophageal echocardiography (TEE) confirmed left atrial mass. TEE revealed a mobile mass with a smooth surface, on a stem attached to the lateral of fossa ovalis (Picture 1). Patient was operated with intra-operative TEE. During the operation, we observed that the LA was filled with newly-formed thrombus. After thrombus was cleared away, a myxoma with a stem on the lateral of fossa ovalis was observed. Myxoma was excised together with its stem. Patient was discharged following an uneventful post-operative period. While the pathology findings supported myxoma, immunohistochemistry analysis was performed to identify whether the mass was a myxoma or an organised thrombus structure. Immunohistochemical findings have confirmed myxoma specific cells and thrombus.
RESULTS: Various autopsy series indicate frequency of primary cardiac tumors to be between 0,0017% and 0,19%. Intra-cardiac myxomas are most commonly located inside the LA (%75). Echocardiography has %100 sensitivity in diagnosis of myxoma. On present case, ECHO failed to discriminate between thrombus and myxoma. On this case, the LA was entirely filled with newly-formed thrombus. After the thrombus was cleared away, myxoma with stem on lateral of fossa ovalis was apparent.
CONCLUSIONS: While cardiac myxomas are usually benign tumors, surgical resection is the only acceptable and definite treatment option. In our case, what appeared to be a smooth surface myxoma with stem was infact, surrounded by thrombus. Hence, in order to prevent embolisation caused by either thrombus or myxoma, intra-cardiac masses must be operated promptly.

PP-361 SURGICAL TREATMENT OF MOBILE RIGHT ATRIAL THROMBUS ASSOCIATED WITH TEMPORARY JUGULAR DIALYSIS CATHETER: CASE REPORT

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OBJECTIVE: Temporary dialysis catheters are essential in the patients who require a vascular access for haemodialysis until a permanent access site is instituted. But they are associated with right atrial thrombus (RAT) formation. We represented a patient with a RAT induced by a jugular dialysis catheter, and mobilized after withdrawal of the catheter.
METHODS: Case. A 36 year-old male with end-stage renal disease, who has been undergoing haemodialysis for 3 years, was referred to our hospital with a RAT diagnosed after withdrawal of the temporary dialysis catheter in the right juguler vein left in situ for more than 4 weeks. He has also a functional brachiocephalic arteriovenous fistula created three weeks ago. The patient has not any sign of pulmonary embolism or infection. The transthoracic echocardiogram revealed a large (3x1 cm) and mobile thrombus attached to the atrial wall with a very narrow pedicle, and prolapsing into the right ventricle through the tricuspid valve (Figure 1). Thrombolytic treatment was not considered because of the risk of massive pulmonary embolism. The patient underwent an emergent operation through median sternotomy. Firm and well organized thrombus was removed from the right atriotomy under cardiopulmonary bypass support. The operation was completed without incident, but severe osteoporosis in the sternum was observed. The patient recovered and discharged on postoperative 10th day, but he readmitted to the emergency service with sternal dehiscence on postoperative 20th day. There was no wound or deep sternal infection. Sternal fixation with rewiring was performed. He recovered well and discharged.
CONCLUSIONS: Central venous catheters are widely used in the routine clinical application. But almost half (46%) of the catheter tips located in the right atrium were found to be associated with RAT. It develops in 2% to 17% of the patients with an indwelling central venous catheter. RAT may involve the catheter tip as early as one week or less after its insertion. Location of the catheter tip is closely associated with thrombus formation, and the right atrial localization is more susceptible to thrombus formation. RAT is associated with high mortality rates varying between 28% to 31%. The major cause of death is massive pulmonary embolism, and the incidence of this complication is 40%. For that reason, the presence of RAT should be examined before the catheter withdrawal in the patients with a temporary haemodialysis catheter with the tip located in the right atrium. Surgical thrombectomy is successfully performed in these patients.

Echocardiogram of right atrial thrombus

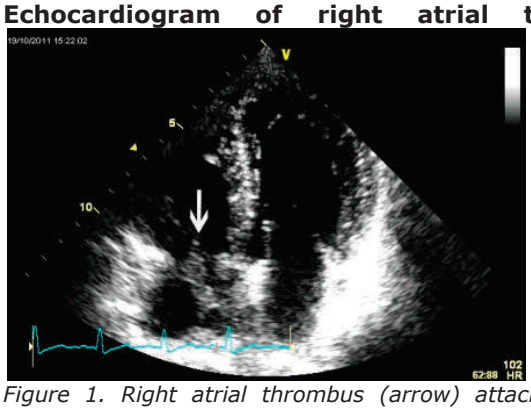

Figure 1. Right atrial thrombus (arrow) attached to the atrial wall with a very narrow pedicle, and prolapsing into the right ventricle through the tricuspid valve is seen in transthoracic echocardiogram.

PP-362 HEPATOCELLULAR CARCINOMA WITH RIGHT ATRIAL TUMOR THROMBUS

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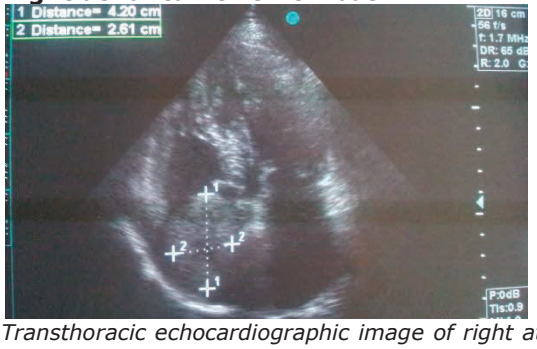
OBJECTIVE: Hepatocellular carcinoma (HCC) with an extension to the inferior vena cava (IVC) or right atrium is uncommon, and its prognosis remains unclear due to the few case reports. HCC advancing to the right atrium through the hepatic vein has generally been regarded as a terminal lesion of carcinoma. Herein, we report a case of HCC with an extension both to IVC and right atrium.
METHODS:A 80 year-old female patient suffering from worsening dyspnea, weight loss, jaundice, abdominal pain was hospitalised for further evaluation. On examination the patient was in a poor physical condition and a blowing systolic murmur on lower left sternal border, crackles on lower lung zones, peripheral oedema including ascites, jaundice, enlarged, tender liver with palpable mass in the left lobe were noted. Laboratory tests showed elevation in liver and cholestasis enzymes and alpha-fetoprotein levels. Besides D-dimer levels were detected over the most upper limit.
RESULTS: Transthoracic echocardiography demonstrated a right mobile atrial mass image in size of 42x26 mm suggesting atrial tumor thrombus. The mass was occupying the whole atrium including the tricuspid valve orifice. An atrial septal aneurysm was detected as well. Mild pulmonary hypertension (35 mm Hg) was present. Cross sectional imaging with computerized tomography revealed low-density hepatic mass with contrast enhancement showing neovascularity and tumor thrombus image extending from liver to right atrium through IVC. Anticoagulant therapy was initiated and further treatment including surgical treatment was offered but the patient refused further treatment. The patient is currently on anticoagulant therapy and on control

echocardiography the mass was decreased in size (27x15 mm).

CONCLUSIONS: Surgical therapy with liver transplantation or resection remains the mainstay of curative therapy for patients with HCC. Tumor thrombus in the inferior vena cava and right atrium is rarely encountered. To prevent sudden death and extend the survival of patients with HCC, therapies involving en bloc resection performed under cardiopulmonary bypass, chemoembolization and thalidomide therapy are current options but still there is no established therapy for HCC patients with right atrial tumor thrombus.

Right atrial tumor thrombus



Transthoracic echocardiographic image of right atrial image

PERIPHERAL ARTERIES: NEW THERAPEUTIC TARGETS IN CARDIOVASCULAR MEDICINE – POSTER PRESENTATIONS

PP-374 INTRAVASCULAR EMBOLIZATION OF A PORT-A-CATH CATHETER REMOVED BY PERCUTANEOUS WAY

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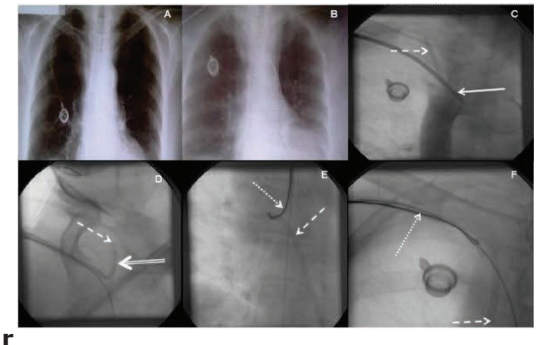
OBJECTIVE: Hickman catheter is surgically implanted and fixed in soft tissues to prevent infection and accidental dislodgment. Complications associated with Hickman catheter include infection, thrombosis, catheter malposition, port obstruction, post-operative bleeding, skin necrosis, pneumothorax and rarely catheter fracture.We aimed to display removal of a broken catheter.

METHODS: Fractured part of the catheter was successfully removed through a percutaneous right subclavian vein approach using a pigtail catheter and goose neck snare. A 79-year-old female patient had subclavian port-a-cath catheter(Figure 1A) and on the routine controls, chest radiograph revealed a broken catheter(Figure 1B). We performed removal of the broken catheter by percutaneus way. The patient's lower extremity veins were thrombosed and the subclavian approach was preferred in this process.

RESULTS: Under fluoroscopic examination, proximal tip of the catheter was observed in right jugular vein (Figure 1C), while the distal tip was in the right ventricle. The right Judkins 4 (JR4) guide catheter was directed into internal jugular vein with the subclavian approach. As it was adherent to the wall due to the tip and could not be caught by goose neck(loop snare) catheter. and was moved a pigtail catheter was sent advanced into the jugular vein and wrapped with the help of the 0.038 inch guide wire with moving port-a-cath catheter into inferior vena cava (Figure 1D). After this maneuver catheter tip was captured with a 15 cm goose neck snare advanced through a JR4 diagnostic catheter (Figure 1E) squeezed JR4 catheter sheath was withdrawn to the brim (Figure 1F). At this point, due to ingress of the catheter into the sheath, the system was taken out completely.

CONCLUSIONS: Percutaneous removal of intravascular especially in terms of surgical-risk patients can carry Cardiac catheterization laboratories should always be prepared to change equipment as needed. In addition, all patients have separate "adventure"s and this may necessitate the use of situation-specific tuning methods.



Figur

X ray graphy depicting before (Figure 1A) and after (1B) the fracture of the port-a-cath catheter. We were unable to capture the port-a-cath catheter via JR4 diagnostic catheter (Figure 1C). Port-a-cath catheter grabbed and dislodged with the help of the pigtail catheter. Port-a-cath catheter was snared (Figure E) and pulled back as a whole system (Figure F).

PP-376 A COMPLICATION OF ARTERIOVENOUS FISTULA:GIANT ANEURYSM

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OBJECTIVE: Arteriovenous fistulas for hemodialysis can be complicated with aneurysmal dilatations, which causes increment in risk of fatal bleeding, in end stage renal disease patients. Incidence of aneurysms in AV fistulas is 5-6%, yet in our case, Systemic Lupus Erythematosus causes an increase of incidence.

METHODS: Twenty one years old female patient, has end-stage renal disease caused by SLE, has a brachiocephalic fistula as an access for hemodialysis for last 4 years. One year ago, a swelling manifested, which greatened gradually. 9cm proximal to antecubital fossa, a 70x50mm swelling was detected on the anterolateral left arm. Thrill and pulsation was

felt by palpation and murmur was heard by auscultation (figure 1). A fistulogram showed an aneurysmal dilatation of whose brachial arterial component is 20mm and venous component is 55mm in diameter. Arterial and venous components of aneurysm were explored, ligated and aneurysm was totally resected under sedation and local anesthesia. The venous part is left as a stump and as an autologous graft, Vena Saphena Magna was implanted at the arterial side(figure2). After the operation a temporary vascular access and a new fistula was created.

RESULTS: Several surgical procedures can be applied in AV fistule aneurysm treatment. The classical technique is ligation of arterial and venous sides and resection of aneurysm. The other one is endovascular stent implantation. In this case, the access is preserved and can be used above the stented region the day after the procedure. Nowadays, also the plication of the free wall of the aneurysm without resection is located among surgical techniques. SLE is an multisystemic disease and can cause vasculitis. Therefore, in oncoming period, the incidence of pseudoaneurysms, which are seen especially at anastomoses lines increases. It's not just a matter of chance that the pathology preparates showed a common endomysial fibrosis,calcification and inflammation.

CONCLUSIONS: In this case the classical surgical technique was applied. Because stent implantation or plication of the wall could had been cause damage and rupture of the aneurysmal wall. Nevertheless, for our case, risk of reformation of aneurysmal dilatation on newly created AV fistula at contrlateral side does not have to be ignored.

PP-378 AN UNUSUAL CLINICAL STATE: TRUE ULNAR ARTERY ANEURYSM IN A FIVE-YEAR-OLD GIRL

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OBJECTIVE: We report a case of 5-year-old girl presented with true ulnar artery aneursysm, and the etiology, clinical presentation and the treatment of the disease.

METHODS:A 5-year-old right-hand dominant girl presented with a pulsatile mass located in the volar aspect of the right wrist. The mass was incidentally discovered by her mother 2 months before the referral. Upon history-taking from patient's mother, we learned that the mass had enlarged during the referral. There was no history of trauma, previous cannulation, or vascular or connective tissue disease, and her medical history was unremarkable. On physical examination, the patient appeared comfortable, without any dysmorphic features. The right hand examination showed a 2x2 cm clearly pulsatile, compressible mass in the volar aspect of the wrist. There was no thrill over the mass. The radial and ulnar arteries were palpable at the wrist, with a normal Allen test result. No signs of finger ischemia were observed. Blood examination including erythrocyte sedimentation rate, and C-reactive protein showed normal values. The test result for antinuclear antibody was negative. Duplex imaging revealed a saccular ulnar artery aneurysm, located in the volar aspect of the right wrist, which did not contain thrombus. The aneurysm was 2 cm in diameter and 2 cm in length. Further radiological tests like angiography was not carried out.

RESULTS: The surgical approach was a complete extraction of the aneurysm under general anaesthesia. The proximal and distal parts of ulnar artery were exposed by vertical incision over the lower part of forearm, and skeletonised (Fig. 1). The aneurysm sac was excised, and this revealed transaction of the ulnar artery. Proximal and distal vascular control was achieved by bulldog vascular clamps after heparinising both ends of the transected artery. The ulnar artery was repaired by end to end anastomosis, using 7/0 polydioxanone (PDS) with interrupted sutures, and flow was restored on release of the bulldog vascular clamps. The clamping time of the ulnar artery was approximately 20 minutes. The pathological analysis of the aneurysm sac demonstrated a true aneurysm. No evidence of vasculitis was observed.

CONCLUSIONS: We think that the normal anatomy should be restored as far as possible especially in infants, considering the potential damage of a radial artery in the future.

Figure

A saccular ulnar artery aneurysm, located in the volar aspect of the right wrist.

PP-379 PENETRATED POPLITEAL VASCULAR INJURY DUE TO LOG NAIL: CASE REPORT

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OBJECTIVE: In our study, a penetrated popliteal artery and vein injury due to log nail case whose diagnosis and treatment was performed in our hospital and which has been reported for the first time is presented.

METHODS:CASE: A twenty-year-old male was administered to emergency service due to stick of a nail which was used to split the log and broken from

the pointed tip with a sledgehammer blow and stuck into the patient's left leg. In the middle line of his left tibia proximal, there was an entrance hole with a widespread ecimotic area around it having the dimensions of 2-3 cm. There was no active bleeding from the injury. There was oedema and tenseness in the left leg from its proximal. No loss of sensibility and motion was observed in his left foot toes. In his pulse examination, left leg pulses were felt weaker than those of right leg begining from popliteal artery. A foreign object was observed just beneath the femur in the left distal in his direct graphy, but no bone fracture. Although there was no flow in popliteal vein in far distal, biphasic flow was observed in popliteal artery in Doppler US.

RESULTS: Taking the Doppler findings into account, the patient was urgently operated with the diagnosis of acute circulation failure resulting from vascular injury. Popliteal artery and vein were found from the proximal of the injury site, and they were suspended. It was observed that popliteal was in full cut on the verge of bifurcation and that the popliteal artery was traumatised approximately 1cm. Distal and proximal sections of the popliteal vein were washed with serum with heparin, and both ends were freed. When the cutting edges were seen to come closer, popliteal vein was anastamosed without using graft. The traumatic site in popliteal artery was repaired with suture primarily. Upon the persistence of tissue oedema and tenseness in the leg, posterior deep and superficial compartments were freed by fasciotomy. Distal pulses in the related leg were completely received through hand doppler in the operation room. The patient was discharged with anticoagulant treatment on the fifth postoperative day. On the first postoperative control, openess in the artery and vein was confirmed by means of doppler US.

CONCLUSIONS: Popliteal vascular injuries may occur due to various reasons. Early diagnosis and treatment play an important role to save extremities.

PP-380 UTERINE MYOMA AND AXILLA-BRACHIAL ARTERY THROMBOEMBOLISM, CASE REPORT

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OBJECTIVE: Myoma of the uterus caused by benign tumor of smooth muscle fibers mass. Common genital fibroids are benign tumors are most frequent. Fibroids pain, constipation, urinary symptoms, bleeding, and symptoms may appear depending on the mass effect. We myoma uteri in this case, the patient developed left upper extremity therapy and surgical treatment of venous thromboembolism axilla-brachial mentioned.

METHODS:39 years old with a diagnosis of myoma uteri, women with medical treatment is followed by the maternity clinic. The patient's medical treatment with progesterone preparations are continuing. Follow-up of the patient's left arm fast-growing numbness, pain, coldness, and loss of motor function occurred. CT angiography in the left upper extremity, left upper extremity were axilla-brachial venous thromboembolism. The patient with right lower extremity was prepared Saphenous Vein Graft Bypass axilla-brachial made. Postoperatively the patient received pulse manually, was discharged on the third day after the operation.

RESULTS: Myoma of the uterus caused by benign tumor of smooth muscle fibers mass. Common genital fibroids are benign tumors are most frequent. During follow-up of these patients and the medical treatment, thromboembolic geometry. For this reason, patients were followed due to myoma uteri should also be wary of venous and arterial thromboembolism.

CONCLUSIONS: Myoma of the uterus caused by benign tumor of smooth muscle fibers mass. Common genital fibroids are benign tumors are most frequent. During follow-up of these patients and the medical treatment, thromboembolic geometry. For this reason, patients were followed due to myoma uteri should also be wary of venous and arterial thromboembolism. Prevent the application of compression stockings is recommended for follow-up of patients with venous thromboembolism. Start prophylactic anticoagulant therapy for patients at high risk for thromboembolism.

PP-381 TREATMENT OF THE DIABETIC ULCERATIVE OSTEOMYELITIS WITH ATHERECTOMY AND MULTIDISIPLINAR APPROACH

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OBJECTIVE: Diabetic leg ulcers can lead to extremity loss if left untreated. Multidisciplinary treatment approach including the infection treatment, pressure relief in the wound and arterial revascularization is important for recovery. The most important step in the treatment of diabetic ulcer is the revascularization. Surgical procedure has an additional complication risks especially graft infection and sepsis in the presence of diabetic leg infection. In these subjects, endovascular therapies can be performed with low complication rates. We are reporting about the treatment of diabetic ulcerative patient who has caused ostemyelitis and cellulitis with atherectomy.

METHODS:65 year-old male patient with insulin-dependent diabetes mellitus admitted to our hospital with unhealed ulcer on the left toe and osteomyelitis in 1st metatarsus, proximal phalanx and basis of distal phalanx. Doripenem and hyperbaric oxygen theraphy (HBO) were started after his admission. Bilateral superficial femoral artery (SFA) lesions were revealed in the MRI angiography. Although hyperemia disappeared in his ankle after fifteen days of antibiotics and HBO theraphy ulcer didn't regressed and endovascular treatment procedure was applied. Total occlusion was revealed in the middle 18 mm segment of the right SFA and severe stenosis was revealed in the adductor channel level

and the proximal part of left SFA. Atherectomy was performed with SilverHawk Plaque Excision System (Ev3 Inc. Nathan Lane North Plymouth, MN) on the right SFA. After this procedure two monorail self expandible stents (7 mmx10 cm) were implanted on the SFA artery respectively. Then two monorail self expandible stent (7 mmx10 cm) was implanted on the SFA artery respectively.
RESULTS: Distal pulses were palpable in the intensive care unit controls. The patient was discharged in the 5th postoperative day with palpable distal pedal pulses, with resting ABI 1.1 on the left and 1.0 on the right and completely healed diabetic ulcer. Walking distance have increased and also the stents in the bilateral SFA arteries were patent in the color Doppler ultrasonography in first and third month control examinations.
CONCLUSIONS: Endovascular interventions should be thought as a treatment alternative for critical limb ischemia with the advantages of decreasing the primary major amputation rates and increasing the extremity rescue rates and survival rate, due to the fact that they decrease the hospital staying time. In the total occluded lesions, atherectomy is reliable method which have acceptable primary and secondary partency rates and it is minimal invasive method to be used in critical limb ischemia.

PP-382 DEVELOPMENT OF COMPARTMENT SYNDROME AFTER GUNSHOT INJURY DUE TO RADIAL ARTERY TRANSECTION

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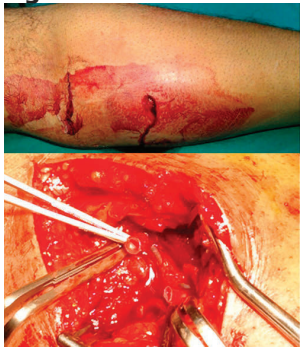
OBJECTIVE: The ulnar and the radial arteries are the two main blood vessels of the forearm. Brachial artery continues down the ventral surface of the arm until it reaches the cubital fossa at the elbow. It then divides into the radial and ulnar arteries which run down the forearm. In this article we present development of compartment syndrome after gunshot injury due to radial artery transection although ulnar arterial flow is maintained.
METHODS:45 year-old male patient due to gunshot injury of the left radial artery, 7 cm distal to the brachial artery bifurcation were delivered to our clinic. The ulnar and the radial artery pulses could not be felt and the saturation rates of right hand fingers were smaller than the %70. However the ulnar artery is intact and the arterial flow was determined preserved in Doppler examination in which there was monophasic arterial flow. There was a bullet entrance in ventral face of forearm. The patient was taken to the operation to explore arterial structures. The skin incision was made parallel to radial artery course. Before reaching the neurovascular sheet, excessive hematoma, extending from entrance point of bullet to the brachial artery bifurcation and also from entrance point to the distally, was determined beneath the flexor carpi radialis muscles. The hematoma was drained. The pulse of the ulnar artery was restored. After that the proximal and distal site of radial artery was dissected. Then vascular clamp were applied and the both ends of radial artery were fixed and radial artery was sutured in an end to end fashion.
RESULTS: Subsequently, the pulse of radial artery was restored and able to be felt manually within a few minutes. The fasciotomy was performed and the skin incision was closed with usual manner. The saturation rates of right hand fingers were restored.
CONCLUSIONS: As a result, excessive hematoma causes pressure increase which blocks the arterial flow even if the arterial structure is intact in compartment. In such cases, fasciotomy must be performed and hematoma must be drained regardless of the arterial flow is.

Figure



PP-383 REDUCING TENSION IN ANASTOMOSIS SITE WITH A SIMPLE SUSPENSION SUTURE IN BRACHIAL ARTERY IN WHICH SAPHEIN VEIN INTERPOSITION WAS PERFORMED

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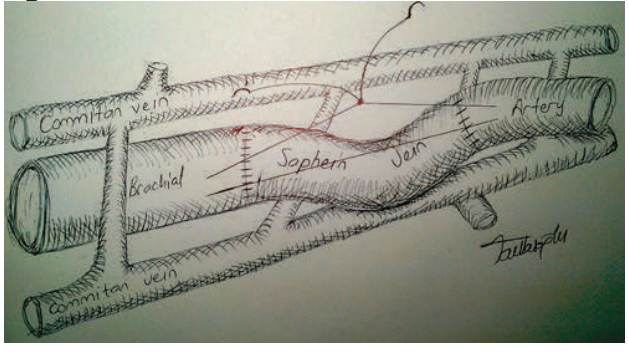
OBJECTIVE: The brachial artery is the major blood vessel of the arm. It is the continuation of the axillary artery beyond the lower margin of teres major muscle. It continues down the ventral surface of the arm until it reaches the cubital fossa at the elbow. It then divides into the radial and ulnar arteries which run down the forearm. In some individuals, the bifurcation occurs much earlier and the ulnar and radial arteries extend through the arm. In this article we present Reducing tension in anastomosis site with a simple suspension suture in brachial artery in which saphein vein interposition was performed.
METHODS:35 year-old male patient due to gunshot injury of the left brachial artery just distal to the axillary artery were delivered to our clinic. The ulnar

and the radial artery pulses could not be felt and the saturation rates of right hand fingers were smaller than the %70. There was a bullet entrance in ventral face of arm. The patient was taken to the operation. The skin incision was made parallel to brachial artery course. Before reaching the neurovascular sheet, excessive bleeding was noticed from brachial artery. The bleeding was controlled with finger pressure. While the brachial artery was being pressurized, the proximal and distal site of brachial artery was dissected. Then vascular clamp were applied. The right saphein vein was explored just proximal to the knee. However the calibration of the saphein vein was not enough to be harvested. Therefore right saphenofemoral junction was explored and only 3 cm long saphein vein had enough calibration. So, 3 cm long graft was harvested. Afterwards it was interposed to the brachial artery. The length of graft was about 0.5 cm shorter. Herein, there was tension on both anastomose site and ulnar and the radial artery pulses could not be felt manually, nevertheless the saturation rate was more than 94%. In this fact, a simple 7/0 prolene suspension suture was applied both proximally and distally to the anastomoses site.
RESULTS: The pulses of ulnar and radial arteries could be felt manually within a few minutes.
CONCLUSIONS: As a result, tension on anastomosis site can be reduced with a simple suspension suture by applying both end of artery just proximal and distal to the saphein vein graft.

Figure



PP-384 A CASE REPORT PRESENTING WITH SYMPTOMS OF ULNAR NERVE COMPRESSION DUE TO ULNAR ARTERY PSEUDOANEURYSM AT GUYON'S CANAL

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OBJECTIVE: The ulnar nerve is commonly compressed in the cubital tunnel. The ulnar nerve entrapment at Guyon's canal is rarely seen. We report a case with ulnar neuropathy at Guyon's canal due to compression of the ulnar artery pseudoaneurysm on whom we operated and provided complete clinical and electrophysiological improvement.
METHODS: Case Report
RESULTS:A 20-year-old male patient was admitted to our hospital with the complaints of numbness in the 4th and 5th fingers, hand weakness and puffiness in hand for 2 months. It was learned from his medical history that he falled down wrist-extension position 4 moths ago. In his physical examination, 3x3 cm pulsatile mass in the hypothenar area of the left hand, motor deficit in abduction of the left hand fingers (2/5) and hypoesthesia in sensory area of the ulnar nerve was detected. Nerve conduction studies showed the left ulnar nerve entrapment at Guyon's canal. Doppler Ultrasound revealed the 4x2,5 cm pseudoaneurysm in the Guyon's canal part of the ulnar artery. The operation under the axillary anesthesia was planned. The exploration at Guyon's canal revealed the compression of the ulnar artery pseudoaneurysm to the ulnar nerve. After the dissection of the ulnar nerve from artery, the aneurysmatic part was transected from distal and proximal endings, and the artery was anastomosed end to end.
After the confirmation of patent arterial flow by milking test, the patient was planned to be followed. In the 3 months visit after surgery, it was observed that the arterial anastomosis was open, motor and sensory deficits were completely lost, and there was no compression findings in the nerve conduction studies.
CONCLUSIONS: Arterial injuries are unavoidable facts in hand traumas which hand surgeons frequently encounter. It should be kept in mind that especially in closed injuries, in the patients with subacute or chronic nerve entrapment findings, these clinical findings may arise from the arterial pseudoaneurysms which are running close to the nerves. In explorations during this period, imaging of the arterial structures before the surgery will decrease the possibility of encountering unexpected surprise during surgery.

PP-385 BILETERAL FEMORO-POPLITEAL ARTERY ANEURYSMS

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OBJECTIVE: Bileteral femoro-popliteal artery aneurysms are one of the very rare syndromes among cardiovascular disorders. Pathology should be treated immediately when diagnosed otherwise finger loss may ensue due to distal embolisms.
METHODS:A 28-year-old male patient presented to the clinic with a bulging mass in his pemoro-popliteal area. The lesion has long been present and cause to cladicatio intemittans bilaterally. He did not indicate a history of trauma to the region. Physical examination revealed a 5x8 cm in diameter, compressible, pulsatile mass at left knee and 4x7 cm right knee. Bileteral Femoro-popliteal artery aneurysms were detected with doppler ultrasonography. Computerize tomographic angiography of the legs showed that the aneurysms were confined to the Femoro-popliteal artery.

RESULTS: Operation was performed in two period. First left aneurysm was treated with surgically. A longitudinal incision on the Femoro-popliteal area over the aneurysm was performed with spinal anesthesia. The femoral and popliteal artery was prepared and controlled proximally and distal to the aneurysm. The aneurysm was freed from the surrounding tissues. The femoral and popliteal artery ligated neck of the aneursm proximaly and distally. The aneurysm was not resected and the ePTFE tube greft was baypassed between femoral artery to popliteal artery. Postoperative course was uneventful and the patient was discharged after 5 days. The second operation was performed same method after two months. He has been symptom free for more than 3 months.
CONCLUSIONS: Bileteral feomoro-popliteal artery aneurysms could be treated with ligation and feomoro-popliteal by pass.

PP-386 PATIENT WITH ACUTE MYOCARDIAL INFARCTION AND LERICHE SYNDROME

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OBJECTIVE: Arteriosclerosis is a systemic disease that can affect various vascular beds. For this reason, coexistence of coronary, peripheral, and cerebral involvement is common. Peripheral arterial disease usually occurs together with coronary disease and patients presenting this condition have a 2-fold to 4-fold higher risk of experiencing myocardial infarction and death. We present an unusual case of a Leriche syndrome in a male smoker and without previous history of cardiovascular disease.
METHODS:A 56-year-old man with acute onset of chest pain came to the emergency department. Diagnosis of myocardial infarction with non ST elevation. Primary percutaneous coronary intervention was performed through the radial artery due to absent pulsations of femoral arteries. LAD proximal 80%, RCA 99% proximal lesion at coronary angiography. Selective arteriography documented total occlusion of the distal abdominal aorta. Renal artery was not observed, and right iliac artery shows filling of collaterals displayed. Doppler ultrasonography revealed low velocity flow and loss of normal biphasic waveforms in the femoral arterial vasculature bilaterally. Smoking was proven to be the only risk factor for advanced atherosclerosis in this patient. Patient was undergone to coronary by-pass surgery after optimal conditions has been received. Triple by-pass was applied by using the saphenous vein to Cx OM branch, LAD and to right coronary artery. General anesthesia inducted with sevofluran inhalation anesthesia and combination with remifentanil infusion, the pump infusion rate was 3530 lt/min/m2 by duration of 1 hour and our cross clamp time was 30 minutes. The patient has been hemodinamicaly stable and taken out to intensive care unit without need of balloon pump and inotropic drug support. The patient was discharched from the hospital without any problem in the follow-up period.
CONCLUSIONS: Coexistence of peripheral vascular disease and coronary disease is common. When deciding treatment for a patient with Leriche syndrome and coronary disease with an indication for revascularization surgery, it is important to document the origin of collateral circulation to the lower limbs. In coronary by-pass operations, using LIMA graft may lead problems especially in patients with peripheral arterial disease. Cases of acute limb ischemia have been reported with use of LIMA grafts, concluded that LIMA is an important collateral source in patients with Leriche syndrome. Therefore; we suggest use of saphenous vein grafts in patients with Leriche syndrome planned to undergone coronary by-pass surgery instead of LIMA that does not risk post-operative lower extremity circulation, moreover reduce morbidity- mortality.

PP-387 A CASE OF POLYMYOSITIS PRESENTING WITH CLINICAL SYMPTOMS OF RAYNAUD'S PHENOMENON

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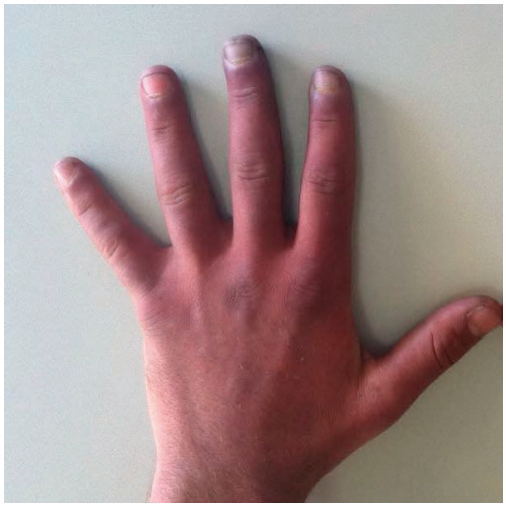
OBJECTIVE: Polymyositis (PM) is a rare seen inflammatory myopathy with unknown etiology. It's thought that autoimmune mechanisms play a role in its etiopathogenesis. As it can be seen in every age group, it is more common in of 45-60 years of age and in women. PM is characterized by proximal muscle weakness occurring within weeks or months, and elevated serum creatine kinase (CK) levels. Serum CK levels may be elevated 10-20 times. Electromyography (EMG) shows the myopathic motor unit potentials as well as plenty of pathological spontaneous activity. A definitive diagnosis is made by muscle biopsy. Prednisone is the first-line treatment of choice for polymyositis. Raynaud's phenomenon (RP) is a vasospastic disorder which often affects the upper extremity arteries, and less frequently lower extremity arteries. PM can be seen in patients with Raynaud's phenomenon. We present a 20-year old male patient who was admitted to our hospital with the symptoms of RP, and was diagnosed with PM in his follow up visits by muscle weakness, elevated serum CK levels, EMG and muscle biopsy.
METHODS: Case Report
RESULTS:A 20-year-old male patient was admitted to our cardiovascular surgery outpatient clinic with the complaints of bruising in the hands and feet in cold weather for 5 months (Figure). Cold test was performed and the patient was diagnosed with Raynaud's phenomenon. Because of the presence of the fatigue, myalgia, difficulty of climbing stairs for one month in his medical history, neurology consultation was taken. Neurological examination revealed mild pseudohypertrophy in bilateral

gastrocnemius muscles. Serum CK level was 2454 IU/L. Needle EMG showed the myopathic motor unit potentials. Since the muscle biopsy was compatible with polymyositis, treatment with prednisone was initiated at 1 mg/kg daily and it was planned to follow the patient regularly.

CONCLUSIONS: Other organ involvement may be present in PM. Interstitial lung disease or cardiomyopathy may develop and the clinical picture may change from a lung disese with a dry cough to arrhythmias after cardiomyopathy. In our case we didn't detect any findings of lung or cardiac involvement.

Since PM is one of the rare treatable myopathies, the diagnosis of PM has a great importance. Polymyositis should be taken into consideration especially in patients presenting with the clinical findings of Raynaud's phenomenon, and detailed neurological assessment should be performed.

Raynaud's Phenomenon



PP-388 ANGIOPLASTY AND STENT IMPLANTATION FOR A PERIPHERIC ARTERIEL OCCLUSIVE DISEASE

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OBJECTIVE: Known smoking history (30 years), having diagnoses of coronary artery disease, hypertension, chronic renal failure, ischemic heart failure, 80-year-old male patient presented to our clinic with complaints of pain of both legs with an exertion of a 100 meters walking. On physical examination, femoral arteries and pulses distal to them were hardly palpable and there was a significant murmur on abdominal aorta and bilateral renal arteries.Abdominal aorta and lower extremity angiography were performed. Atherosclerotic contour irregularities and extensive wall calcification in abdominal aorta, more than %95 long segment prethrombotic stenosis at the proximal segment of the left renal artery just after the origin,%55-60 concentric stenosis at the right renal artery just after the origin were determined. There was %80-85 stenosis at the distal part of right common iliac artery and %80-85 on the distal part of right external iliac artery. Femoral arteries were not obstructed but the distal segment of superficial femoral artery was %80-85 stenotic. Popliteal artery was open. There was blood flow through the distal segments of posterior tibial and peroneal arteries. Anterior tibial artery was occluded on the mid-section. %45-50 stenosis at the beginning of left main iliac artery and %40-45 stenosis at external iliac artery were detected. Femoral arteries were not obstructed and there were multisegmenter stenoses at the distal part of superficial femoral artery. There was no flow to the distal part of posterotibial artery. Peroneal artery which has stenoses at the distal part and anterior tibial artery were ocluded at the mid segment 6x18 mm monorail balloon expendable stent were implanted to %55-60 concentric stenosis just after the origin of the right renal artery and total dilatation was obtained. Self-expendable peripheric nitinol stent (3 pieces) (10x80 mm) to the right iliac artery, self expendable peripheric nitinol stent to the left iliac artery (2 pieces) (10x80 mm) implanted for the stenosis at bilateral iliac arteries. Intrastent dilatation was performed to the stents which were placed with pta baloon catheter with the help of the inflation device(8x40 mm). As is clear from this case, the treatment of peripheral arterial occlusive disease is an increased interest in recent years and the vascular surgery method shifted to endovascular and medical treatment. In this case, the patient is at high risk for surgical implantation and multistent implantation is successfully applied. The patient's symptoms disappeared and no complications developed.

Angiographic findings of the patient before stent implantation

PP-389 GIANT ANEURYSM POPLITEAL ARTERY

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OBJECTIVE: Popliteal artery aneurysms at a rate nearly as much as 70%, is the most common aneurysm of all peripheral artery aneurysms.Patients with this diagnosis usually complain of claudication and rest pains.Clinical presentations of venous stasis, in 5-10 percent of the patients in the clinical findings may be linked popliteal artery pressure and complaints of pain may be associated to compression of the tibial nerve.70-year-old hypertensive male patient was admitted to our outpatient clinic.The patient presented with claudication,swelling below the right knee,and complaints of pain and numbness.

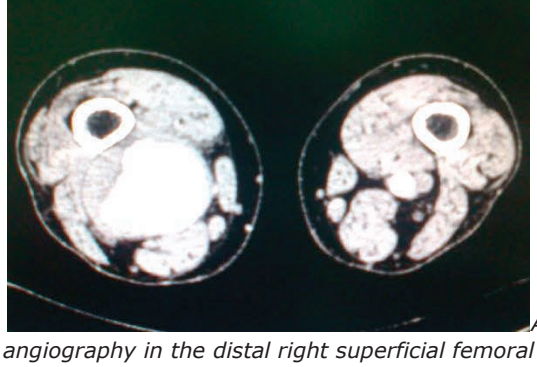
A Doppler ultrasound found venous insufficiency in the right leg, the superficial and deep venous system.A doppler ultrasound of the right popliteal artery showed an arterial thrombus reaching approximately 8 cm in diameter and wall thickness of 1.5 cm in the aneurysmal dilatation.An angiography in the distal right superficial femoral artery and popliteal artery detected a segment fusiform aneurysm approximately 8.2 cm with an outer diameter of 10 cm.There was no filling of the aneurysm distal to the vascular structures.

METHODS: Under spinal anesthesia,firstly,a saphenous vein graft was prepared just above the knee on the right leg.Then,a medial incision was made distal to the femoral region.The proximal popliteal artery was suspended.Another medial incision was made proximal to the tibia.The distal popliteal artery was found and was suspended.After the aneurysm sac was revealed,1 cc of heparin was administered.After this, the aneurysm sac was bound proximally and distally.The prepared saphenous vein graft was reversed distally and popliteal artery was joined by end-to-side anastomoses.Using the tunnel formed by the saphenous vein graft proximal popliteal artery was joined by end-to-side anastomosis.

RESULTS: Popliteal and distal pulses were taken manually and with a positive result the operation was ended.In the postoperative period, the patient was discharged on the 5th day without any clinical complaints.

CONCLUSIONS:A popliteal artery with a diameter larger than 2 cm in diameter is considered to be an aneurysm.It is unneccessary to resect an asymptomatic aneurysm. Surgical treatment is recommended in aneurysms larger than 2 cm, such as in our patient.The aim of surgical treatment is arterial continuity and to ensure the elimination of the aneurysm causing compression.The best treatment method is a bypass graft to disable aneurysm.This method also ensures adequate blood flow to extremities preventing the onset of complications in the future.Elective repair of aneurysms, have a 5-year patency rate of 90% in autologous vein and the 10-year patency rate is above 80%.

angiographic appearance of the popliteal aneurysm



An angiography in the distal right superficial femoral artery and popliteal artery detected a segment fusiform aneurysm approximately 8.2 cm with an outer diameter of 10 cm. There was no filling of the aneurysm distal to the vascular structures

PP-390 RUPTURED ABDOMINAL AORT PSODOANEURYSM OF 33 YEARS OLD MALE PATIENT

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OBJECTIVE:33 years old male patient applied to emergency service with abdominal pain started 8 hours ago before coming to emergency service. He has no known diseases before and no using drugs. In his physical exam there were acute abdomen symptoms. He has extensive defence and rebound. Hemogram and biyochemical analysis were normal. With these findings Abdominal CT and Abdominal CT anjiography was made to the patient. Result of the CT anjio was interesting. There were ruptured abdominal aort psodoaneurysm 5 cm above iliac bifurcation. 12 cm intraabdominal hematoma extending to retroperitoneum.

METHODS: With these findings the patient urgently taken to the operation room. By a median abdominal insicion, the abdominal aorta was reached. There were 5 cm aorta psodoaneurysm and it was ruptured. In the retroperiteum there was a big hematoma extending to the left kidney aprroximately 12 cm in size. X-clemp was put to the proximal and the distal part of the ruptured part of the abdominal aorta. Aorta-aortic 5cm long dacron tube graft interposition was made. X-clemps were removed and the bleeding control was made. Layers were closed according to the anatomic plan.

RESULTS: After surgery the patient transported to the intesive care unit. 3 hours later we extubated him. After surgery the peripheric pulses obtained by hand. we followed him for 12 hours in intesive care unit and he had no problem. At 4th day after surgery he was discharged from the hospital with no problem.

CONCLUSIONS: Ruptured or non-ruptured abdominal aort aneurysm is a very rare disease in young people and it is generally according to behcet's disease, enfections,connective tissue diseases or major vasculitic syndromes. Our patient was 33 years old and he has no symptoms of these dieseases before. Actually he never came to hospital before in his life. This was an interesting case because of his age. After discharge we transfer him to a romatology clinic from another hospital to research any of these diseases we mention before.

PP-391 PSEUDOANEURYSM OF GASTRODUODENAL ARTERY SECONDARY TO BEHCET'S DISEASE: A CASE REPORT

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OBJECTIVE: Behcet's Disease is a chronic, relapsing systemic vaskulitis which can involve all organ systems. Superficial trombophlebitis and deep venous trombosis are the commonly seen venous problems. Venous manifestations are mostly characterised with superficial trombophlebitis and are seen in 1/3 of the patients. Arterial manifestations

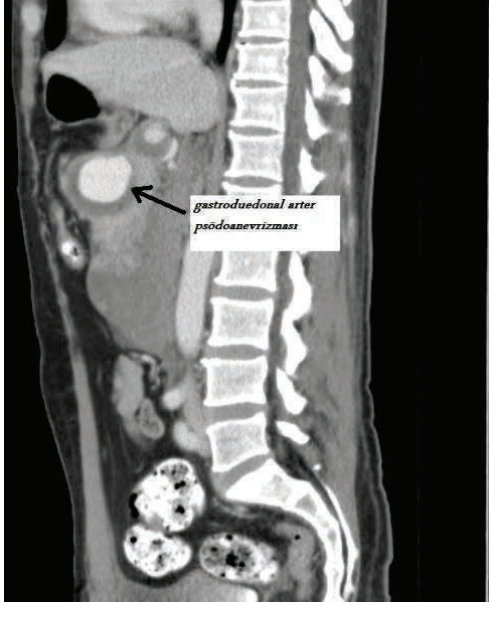
are aneurysms, arteraial trombosis, systemic and pulmory arterial angiitis. Visceral aneurysms are seen rarely.

METHODS:A pseudoaneurysm was diagnosed in a 35 years old male patient who was being treated by our hospitals dermatology clinic for behcet's disease, in examination of his relapsing stomachache. A endovascular intervention was planned before the patient came to our hospitals emergency station with increased symptoms and decreased hematocrit. A thoraco abdominal computerised tomography showed a ruptured gastroduodenal artery pseudoaneurysm. After a unsuccessful endovascular approach we ligated the gastroduodenal artery with open surgery. After a uneventful postoperative care of 7 days the patient was discharged from hospital.

RESULTS: Arterial manifestations are seen less then venous manifestations in Behcet's Disease. Visceral arterial aneurysms are rarely seen but important vascular pathologies becouse of their risk of ruptur. Ruptur in psuedoaneurysms are more common then true aneurysms. Gastroduodenal aneurysms are rarely seen with a incidance of%1,5-2. In Behcet's Disease the formation of true or psudo aneurysms are reported, but visceral arterial aneurysms like gastroduadenal artery pseudoaneurysm are seen very rare. These patients can refer to hospital with stomachache, intra or retroperitoneal hemorrhagia. The incidence of ruptur is reported as 57%. In most cases visceral arterial aneurysms are diagnosed in autopsy performed after a massif hemorragia and death.

CONCLUSIONS: As result, visceral true or pseudo aneurysms must be kept in mind in patients with Behcet's Disease who have stomachache and the treatment as a endovascular approach in first step, must be planned immediately.

Pseudoaneurysm of Gastroduodenal Artery



PP-392 BLEEDING CONTROL OF VERTEBRAL ARTERY TRANSECTION IN ITS SECOND PART DUE TO GUNSHOT INJURY

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OBJECTIVE: The vertebral arteries arise from the subclavian arteries, one on each side of the body, and then enter deep to the transverse process of the level of the 6th cervical vertebrae (C6). Or occasionally (in 7.5% of cases) at the level of C7. They then proceed superiorly, in the transverse foramen of each cervical vertebra until C1. This path is largely parallel to, but distinct from, the route of the carotid artery ascending through the neck. At the C1 level the vertebral arteries travel across the posterior arch of the atlas through the suboccipital triangle before entering the foramen magnum. Therefor the vertebral artery may be divided into four parts. The first part runs upward and backward between the Longus colli and the Scalenus anterior muscles, the second part runs upward through the foramina in the transverse processes of the C6 to C2 vertebrae, third part of the artery is covered by the Semispinalis capitis and is contained in the suboccipital triangle, a triangular space bounded by the Rectus capitis posterior major, the Obliquus superior, and the Obliquus inferior muscles, and the fourth part pierces the dura mater and inclines medialward to the front of the medulla oblongata. Because of the sheltered course of vertebral artery, its injuries only emerge as a result of gunshots. The spread of tissue damage is regarding to the mass of the bullet and its kinetic energy. In this article we present bleeding control method of vertebral artery transection in the second part of its course.

METHODS:34 year-old male patient due to gunshot injury of the left vertebral artery were delivered to our clinic. We could not control bleeding in the first attempt; however we decided to find the proximal end of the vertebral artery in the departure point from subclavian artery. Subsequently the patient was turned on right lateral decubitus position to be dissected the suboccipital triangle (third part of vertebral artery). Afterwards vertebral artery had ben ligated before it entered the cranial cavity.

RESULTS: As a result, the bleeding of vertebral artery transection in the second part can be controlled by ligating proximal end just close to departure point and distal end just before entering the cranial cavity.

CONCLUSIONS: It should be kept in mind that patient had to be placed in lateral decubitus position to be reached to the first and third part of vetebral artery to control its bleeding.

PP-393 HUGE SPLENIC ARTERY ANEURYSM: CASE REPORT

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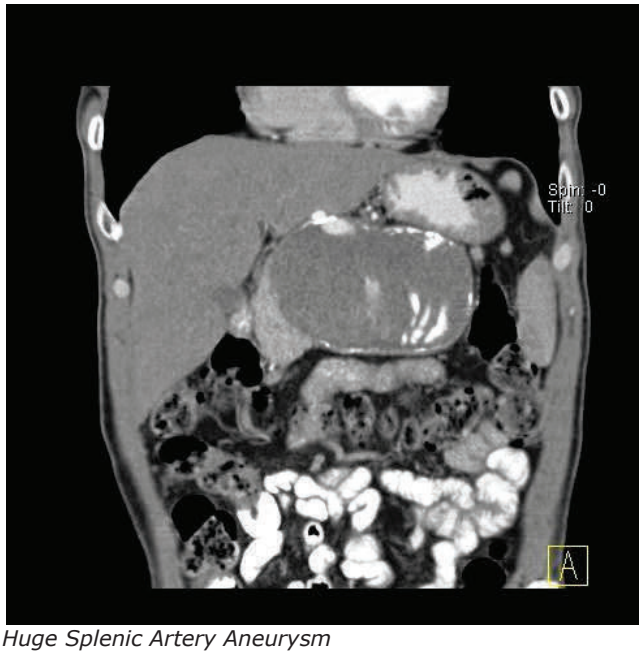
OBJECTIVE: Splenic artery aneurysms are uncommon clinical entities that usually have an asymptomatic course but carry the risk of rupture and fatal hemorrhage. We present the case of a 63 year old man with abdominal pulsatile mass. The mass was 23 cm diameter splenic artery aneurysm which strictly adherent to pancreas and it was diagnosed by computed tomography. The patient underwent open surgical repair, aneurysmectomy and end to end anastomoses were done. We did not need to splenectomy.



Huge Splenic Artery Aneurysm

PP-394 A TRUE RADIAL ARTERY ANEURYSM AFTER TENDON REPAIR: A CASE REPORT

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OBJECTIVE: Perpheric arterial aneurysms of the upper extremities are seen less then under extremities.The aneurysms of the upper extremities are located in subclavian, axillar, brachial,radial or ulnar arteries. Radial arterial aneurysms are commonly as result of trauma and less frequent isolated idipathic radial arterial aneurysms are seen.
METHODS:A 18 years old male patient was injured 6 months ago by a broken glass. In the examination a injury in vascular system was not seen and a tendon was repaired by the traumotoligist. In clinical follow up a bulge was inspected over the radial artery location in forearm and by a doppler ultrasonography a true aneurysm of dimension 2x2 cm was diagnosed. The patient was operated under local anestesia. In the 1/3 proximal of the rigt radial artery a aneurysm fixed with the muscle flexor carpi radialis was found. A right radial artery aneurysmectomy and a sphenous vein interposition was performed succesfully. The distal radial artery pulse was palpable and there was a sufficient bloodflow. The patient was discharged from hospital in the second day after surgery without any problem.
RESULTS: Radial artery aneurysms are seen mostly as psuedoaneurysm formations. True radial artery aneurysms are commonly as result of trauma and are wery rare. Mostly the patients are refered to hospital becouse of a bulge.
CONCLUSIONS: The risks of tromboembolysm, gagrene and rupture are the reasons for surgical treatment after diagnosis, by resection of anurysm and revascularisation if needed.

PP-395 SUBACUTE SPONTANEOUS ARTERIAL THROMBOSIS IN A BRITTLE DIABETES PATIENT

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OBJECTIVE: The term 'brittle' is used to describe an unusual subgroup of type 1 diabetic patients who have glycaemic instability with repeated and often prolonged hospitalization. They experience conventional attempts at recontrol with multiple injection therapy or continuous subcutaneous insulin infusion. Type 1 patients with brittle behaviour frequently have recurrent admissions with diabetic ketoacidosis. They are usually young and female, overweight and insulin resistant. They were shown to have a relatively high mortality from potentially preventative causes (e.g. DKA and hypoglycaemia) and an excess of microvascular complications.
Microangiopathic complications lead to a high mortality (50% in 20 years). The deaths occurr in relatively young women (aged 17–45 years).
METHODS:A 41 year old female patient admitted to our hospital with cyanosis and pain in the right foot. She had complaints for 2 weeks and in an outer center she was given low molecular weight heparin (LMWH) treatment. From the history it is learned that she was diagnosed as Brittle Diabetes Mellitus (BDM) 5 years ago and given insulin therapy. Right femoral and politeal artery pulses were intact but dorsalis pedis and posterior tibial artery pulses were not palpable. Digital substraction angiography was performed. Right anterior tibial artery was occluded in the mid crural segment with no distal perfusion. Right posterior tibial artery was barely visualized in distal segments. Right dorsalis pedis and arcuate arteries were occluded(Figure 1).
RESULTS: Subacute arterial thrombosis was diagnosed based on history and DSA findings. She was given anticoagulant therapy together with pentoxyfylinne. Cyanosis subsided and analgesia was provided. The patient is now being followed up for 1 year without claudication.
CONCLUSIONS: Diabetes Mellitus is a challenging disease leading to micro and macrovascular complications. These complications have high morbidity and mortality. Strict blood glucose level

control is mandatory. BDM is even more challenging since blood glucose levels do have frequent fluctations and insulin treatment itself may not be satisfactory in glycaemic control. The microvascular complications may cause mortality as high as 50 % and in young age groups. Diffirent from DM patients, in addition to foot care and general considerations given, close follow-up of BDM patients should be made by a vascular surgeon in order to prevent the microvascular complications.

Figure 1. Right foot angiographic view

Occluded right dorsalis pedis and arcuate arteries

PP-396 LATE TERM COMPLICATION AFTER AXILLO-BIFEMORAL BYPASS: DISRUPTION OF PROXIMAL ANASTOMOSIS AND PSEUDOANEURYSM

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OBJECTIVE: In this case report, we describe a proximal anastomotic disruption of an axillo-bifemoral bypass graft and the axillary artery pseudoaneurysm.

METHODS:66 year old male patient who has claudication after 100 m was performed an axillo-bifemoral bypass in our clinic last year. In physical examination he had ankle brachial index 0.5 in left and 0.4 in right side. Bilateral femoral artery flow was determineted as negative furthermore there was not flow also in polytetrafluoroethylene (PTFE) graft in doppler examination. Computed Tomography Angiography showed a pseudoaneurysm of axillary artery and the 1/3 proximal side of the axillo-femoral graft was separation in the abdominal side wall without any arterial flow (Figure1 - 2). The patient was operated under local anesthesia due to severe chronic obstructive pulmonary disease. The pseudoaneurysm was approached by routine axillary artery insicion, proximal - distal artery was klemped and axillary pseudoaneurysm was removed. Later, PTFE-axillary proximal end to side anastomosis was done on axillary artery puncture point. After creating subcutaneous tunel, end to end distal anastomosis was done between old and new PTFE graft at the level of lateral abdominal wall. There was no complication after operation.

RESULTS: Axillofemoral bypass grafting has been widely used for relief of severe lower-limb ischemia in a variety of clinical settings including multple previous abdominal operations, severe chronic obstructive pulmonary disease. Proximal anastomotic disruption of axillo-bifemoral bypass grafts is a rare but serious complication due to major hemorrhage. However, pseudoaneurysm are a know complication that can appear in the anastomotic side of the graft. Previously described causes of anastomotic disruption and aneurysm include the following: infection, technical errors, tensile strenght, trauma, hypertension, clamp applications to the graft, damage to material with manufacturing process and severe mechanical stress. But main reasons that cause disruption and aneurysm can be arm or shoulder hyperabduction motion and lateral flexion of the body increased the distance between the axillary and femoral arteries.

CONCLUSIONS: In conclusion, it should take into consideration that proximal anastomosis disruption and auto-limited pseudoaneurysm formation can occur as a late term complication after axillo-bifemoral bypass surgery. We think that disruption of the anastomosis should always keep in mind by surgeon.

Figure

Preoperative CT Angiography image

PP-397 SUPERIOR MESEMTERIC ARTERY REIMPLANTATION ON CHRONIC INTESTINAL ISCHEMIA

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OBJECTIVE: Superior mesenteric artery (SMA) reimplantation is one of the surgical technique can be

used in SMA stenosis. SMA is mobilized to lower border of pancreas then anastomosed to abdominal aorta in end-side fashion. Postprandial pain and weight loss completely resolved after surgery because of adequate blood flow restored.

PP-398 RECURRENT SPONTANEOUS PNEUMOMEDIASTINUM AND PNEUMORRHACHIS ACCOMPANIED BY RAYNAUD'S PHENOMENON

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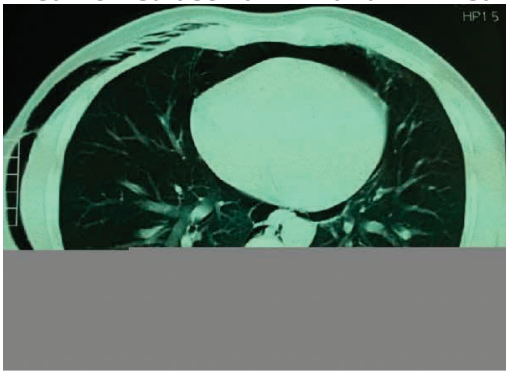
OBJECTIVE: Pneumomediastinum (PM) is characterized by the presence of the air in the mediastinal area. Pneumorrhachis (PR) is a radiological condition with the air in the spinal epidural space. Coexistence of these two cases and recurrent spontaneous pnomomediastinumun have rarely been reported in the literature. We report a 20-year-old male patient whom we diagnosed with Raynaud's phenomenon (RP) first, and then we observed the recurrent spontaneous pneumomediastinum attacks accompanied by subcutaneous emphysema and diagnosed with pneumorrhachis radiologically in his follow-up visits.
METHODS: Case Report
RESULTS:A 21-year-old male patient was admitted to our Cardiovascular Surgery outpatient clinic with the complaints of pain and bruising in both hands by exposure to cold. Intensive smoking (2 packs/day) was present in his medical history. Hyperemia in both hands was observed in physical examination. 3-phase cold-test was positive. The patient was diagnosed with Raynaud's phenomenon. Serological tests for the etiology of secondary Raynaud's phenomenon was normal. Vasodilators and calcium channel blocker treatment were initiated. Smoking cessation training was given. In the 14 days later follow-up visit, subcutaneous emphysema in both dorsal forearm spreading to torax was observed, so that chest X-ray was taken with the the suspicion of pneumothorax and pneumomediastinum was detected. The patient was hospitalized. He was discharged because of the spontaneous regression. In 1 month follow-up visit after discharge, subcutaneous emphysema was observed and pneumomediastinum and pneumorrhachis was detected on chest radiography and chest computed tomography (CT) (Figure). He was re-hospitalized. Subcutaneous emphysema disappeared in his follow-up and spontaneous regression of pneumomediastinum and pneumorrhachis was observed
CONCLUSIONS: According to our knowledge our case is the seventh case reported as recurrent spontaneous pneumomediastinum (SPM) and the first case in terms of accompanying by pneumorrhachis in the literature. Pneumorrhachis is usually iatrogenic and occurs following administration of epidural analgesia. Furthermore pneumorrhachis may occur very rarely by passing through of mediastinal air to the epidural space as in our case. This occurs due to the lack of real fascia barriers between the posterior mediastinum and the epidural space. It appears that whether there is a relationship between SPM and RP will remain controversial. Since smoking is one of the the most important factors in the etiology of both RP and recurrent SPM, we think that intensive smoking in our case might be responsible from the coexistence of SPM and RP.

Pneumomediastinum and Pneumorrhachis



PP-399 A RARE COMPLICATION AFTER AXILLOFEMORAL BYPASS OPERATION: DISRUPTION OF THE PROXIMAL ANASTOMOSIS– SINGLE CASE AFTER 12 YEARS' EXPERIENCE IN EXTRA-ANATOMIC BYPASS SURGERY

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OBJECTIVE: There are well known complications following axillofemoral bypass operation such as upper extremity embolism, graft infection, seroma formation and disruption of the proximal anastomosis. Here, we report a case with disruption of the proximal anastomosis after axillofemoral bypass operation.
METHODS:46 year old male patient admitted to our clinic with complaints of claudication in both extremities and an ischemic wound on left foot. He had history of diabetes mellitus, hypertension, coronary bypass operation and renal transplantation due to chronic renal failure. Physical examination revealed that femoral artery, popliteal artery and distal pedal pulses were non-palpable and left ankle-bracial index was zero on left leg. On right leg, femoral artery pulse was palpable, popliteal artery and distal pedal pulses were non-palpable and right ankle brachial index was 0.5. There was critical limb ischemia and an ischemic wound on left foot. Magnetic resonance angiography imaging was preferred in this patient. This showed bilateral superficial femoral artery occlusion, left common iliac artery occlusion and diffuse atherosclerotic structure of the right common iliac artery. There was a transplanted kidney to left common iliac artery.
RESULTS: We performed a left axillofemoral bypass and left femoropopliteal bypass operation under general anesthesia by using an 8 mm full ringed polytetrafluoroethylene graft. On the seventh postoperative day, patient complained a sudden pain and swelling on left subclavian incision after a hyperabduction of the left arm. Patient was taken into operation theatre just after this complaint for suspician of disruption of the proximal anastomosis. There was bleeding through the anastomosis line and detachment of the sutures. Anastomosis was repaired by continuous sutures with 5/0 polyprolylene. Patient was discharged at the fifteenth postoperative day and followed up at 30 day and third month without any problem. Several reports indicate an incidence of disruption of the proximal anastomosis after axillofemoral bypass around 5%. In our clinic, we performed 2246 elective peripheric vascular operations between 1999 and 2011. Among them 41 patients had axillofemoral bypass operation. We observed this complication in only one patient (2.4%) in 12 years.
CONCLUSIONS: In conclusion, choosing the appropriate axillary artery during operation, avoiding tension at proximal anastomosis line, informing the patients about mechanical distress and taking precautions regarding hyperabduction will add to long term success rate of the axillofemoral bypass operation and reduce development of such a complication.

PP-405 AXILLARY LYMPHANGIOMA IN ADULT PATIENT

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OBJECTIVE:A 27-year-old women presented to our hospital with shoulder pain and axillary swelling for one year. She had no history of traumatic lesions, infective disease, upper extremity embolic symptoms or family history for tumors. Vital signs were in normal range, bilateral upper and lower extremity pulse were normal. Physical examination revealed a nonpulsatile mass in the right axillary area. Laboratory examination results were normal range. Computed tomography showed 11x7.5x8.5 cm hypodense lobulated cystic lesion with contrast enhancement located at intermuscular area of left axilla.
METHODS: The patient underwent surgical management under general anesthesia. Intraoperatively lymphangioma was noted to descend from shoulder towards the breast and the Lymphangioma (Figure 1) was resected.
RESULTS: The postoperative course was uneventful, and the patient was discharged on the 5th postoperative day. Pathologic examination was consistent with a lymphangioma.
CONCLUSIONS: Lymphangiomas are rare benign tumors of the lymphatic vessels that are most commonly identified within the first few years of life. Lesions presenting later in life are uncommon. Although they frequently occur in the neck and mediastinum, this is the study reported case of a lymphangioma in the axillary area for lymphangiomas of the cervico-thoracic region; previously described approaches include cervicothoracotomy and other more invasive approaches. Complete excision is the mainstay of therapy (1) Peculiarity of the present study is the age of the case as an adult and the axillary localization which is rarely encountered. Most surgeons agree that the cystic hygroma should be excised when the diagnosis is made because of the danger of severe complication. Treated by surgery, the prognosis remains good. However, a few local recurrences, fistula malformation or infection have been reported (2). In our case, the lesions were totally resected. In conclusion, lymphangioma is a benign tumor. For a good prognosis benign lymphangiomas should be resected totally. In our case, we managed to perform complete resection without any complications. The findings of this study, the patient is of advanced age and unusual localization

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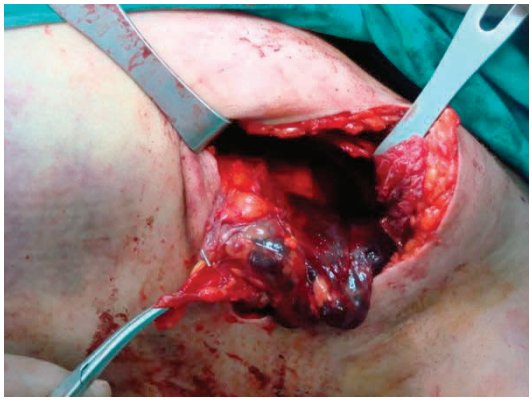

PP-406 TRAUMATIC ARTERIOVENOUS FISTULA WITH PSEUDOANEURYSM OF DEEP FEMORAL ARTERY FOLOOWING MOTOR VEHICLE ACCIDENT: A CASE REPORT

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OBJECTIVE: Traumatic pseudoaneurysm of the deep femoral artery (DFA) is usually secondary to endovascular intervention or to mycotic infection which is widely encountered in drug abusers. The majority of the cases are generally asymptomatic and present only with a pulsatile mass. However, on some occasions, clinical signs of compression (pain, neurological or venous symptoms) may occur. We recently experienced a 21-year-old male with traumatic pseudoaneurysm of the deep femoral artery following motor vehicle accident.
METHODS: The patient admitted to hospital with the complains of pain and swelling in left groin. There was a history of motorcycle accident one month ago. Physical examination revealed pulsatile mass along with thrill on the left groin. The laboratory findings were within normal range. The duplex ultrasound scan showed an aneurysmatic dilatation of the deep femoral artery and arteriovenous fistula between deep femoral artery and deep femoral vein. Multi-slice computed tomography angiography revealed 12x8x9 cm aneurysm originating from deep femoral artery and an arteriovenous fistula.
RESULTS: Surgical management was performed; the aneurysm sac was opened and deep femoral artery was ligated through the fistula. Fistula was divided. The hematoma was evacuated. Postoperative course was uneventful. No limb ischemia was observed. The patient was discharged on postoperative 5th day. A control color doppler ultrasound was performed on postoperative 1st month and no fistula was observed.
CONCLUSIONS: We suggest early surgical treatment of post-traumatic arteriovenous fistulas and pseudoaneurysms due to the rapid progressive pattern of the disease. Surgical treatment has still been safe and effective method of treatment.

PP-407 LEG TRANSPLANTATION OR MALPRAXISE IN THIRD CENTURY?

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OBJECTIVE: Cosmas and Damian were twins, born in Aigai-Yumurtalik- Adana, practised the art of healing and attained a great reputation. Cosmas was physician, Damian was apothecary. Their most famous miraculous exploit was 'The homoplastic limb transplant' according to the legend of saint Cosmas and saint Damian the grafting of a leg from a recently deceased Ethiopian to replace a patient's ulcered leg.
METHODS: Antic Sources, Canon of the Mass and in the Litany of the Saints. Oil Paintings
RESULTS: In third century, leg transplantation is impossible. What is the sources of this miraculous?
CONCLUSIONS: Cosmas and Damian were patron of hernia. We think this was a henia repairing complication. Cosmas and Damian were unmercenary iatros. If they will accepted as a saint. They shoul have some miracles.

PP-408 ACUTE OCCLUSION OF CAROTIS STENT AND COMPLETE RECOVERY WITH URGENT SURGERY

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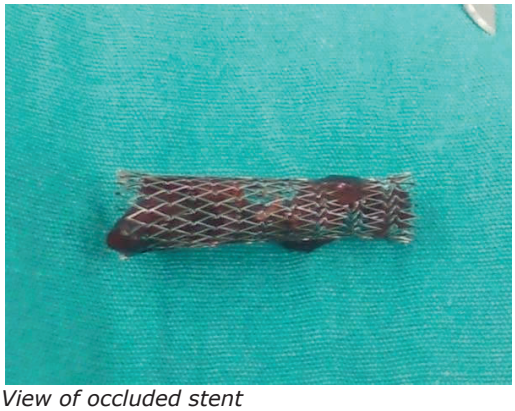
OBJECTIVE: Embolic events are the most common complications after carotis stent implantation. Acute instent thrombosis risks are avoided with anticoagulant and antiagregant regimen in preoperative and peroperative period. Although effective antithrombotic treatment acute stent occlusion might occur.
METHODS: Self expandible 8-6x30 mm tapering stent deployed on left ICA of 74 years-old woman with the symptoms of dizziness and history of transient ischemic attack.
RESULTS: Following the dysarthria and confusion, patient became unconscious in first hour of the procedure. We applied urgent surgery with the findings of acute stent occlusion in doppler ultrasonographic and angiographic examination. Occluded stent removed and carotis endarterectomy surgery was performed in the operation (Figure). The patient extubated without any complications in postoperative 3rd hours and discharged from the hospital on postoperative 4th days.
CONCLUSIONS: Life-threatining complications as acute stent occlusion might occur in the endovascular procedures. Endovascular procedures might be performed in hybrid operating theaters wit the advantage of early diagnosis and urgent surgical treatment of acute complications.


View of occluded stent

PP-409 OBESE AND RIGHT NEPHRECTOMY IN A PATIENT WITH CORONARY BY-PASS SURGERY: A CASE REPORT

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OBJECTIVE: Obesity appears to be a significant problem in recent years. With increasing opportunities for diagnosis and treatment of coronary by-pass surgery has increased in recent years. Although the increase in elderly population is a very common disease seen in some patients, is associated with. We have earlier in this article, right nephrectomy in a patient with chronic renal failure and obese presented a case of coronary by-pass surgery.
METHODS:65 years old, weighing 117 kilograms, body mass index of 35 obese female patient with a diagnosis of chronic renal failure on 1992 is the right nephrectomy followed by the nephrology department. Coronary angiography because of chest pain 6 months before the decision was issued in the surgical patient. The patient started breathing exercises before surgery, and prophylactic antibiotics were made two days before the operation baslanmistir.Hastaya CABGx5. Addition to the sternal wire closure of the sternum of the patient were used. The patient's skin and subcutaneous closure has been modified using additional suture. The patient with a chest brace for three months after surgery were used. saphenous graft was prepared.
RESULTS: Open heart surgery is a significant problem of obesity. Obesity, heart surgery, mediastinitis, sternal dehiscence rate increases. Chronic renal failure patients, patients with coronary heart disease may be associated with the planned surgery. These doses of drugs used by patients before and after the operation should be taken into account. Fluid and electrolyte balance should be monitored carefully. To reduce the proportion of patients with sternal dehiscence sternal addition to the use of wire, the use of chest brace, modified sternal closure techniques available. Chronic obstructive pulmonary disease, post-operative period and are useful to control cough. Dehisensinin prevention, regulation of blood sugar before and after operation in patients with diabetes mellitus, is effective in preventing the development of mediastinitis.
CONCLUSIONS: Obesity is a major problem in open heart surgery. Coronary by-pass surgery, surgery, mediastinitis is rare. Obese patients have increased rates of mediastinitis in patients undergoing. Oranlarininda sternal dehiscence in obese patients are known to increase. To reduce the proportion of patients with sternal dehiscence sternal addition to the use of wire, the use of chest brace, modified sternal closure techniques available. Chronic obstructive pulmonary disease, post-operative period and are useful to control cough. Dehisensinin prevention, regulation of blood sugar before and after operation in patients with diabetes mellitus, is effective in preventing the development of mediastinitis.

PP-410 CASE REPORT: SIMULTANEOUS CORONARY BYPASS AND RIGHT COMMON CAROTIS ARTERY BYPASS OPERATION

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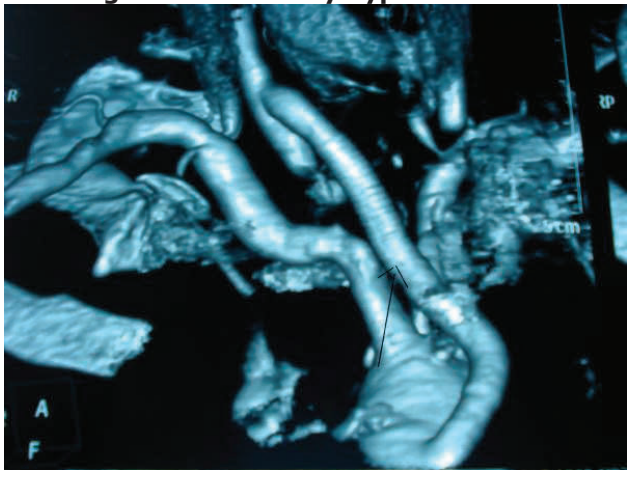
OBJECTIVE: Carotis artery stenosis is the most common couse of stroke and atherosclerosis has a role in one third of all strokes. Coronary revascularisation operations with a carotis stenosis have a increased risk of postoperative stroke. altougt a simulatenous intervention in one operation is generally accepted, there are discussions about the best approach. The increased incidence of heart infarction during carotis endarterectomy and increased neurological events after coronary surgery shows the relation between these two diseases. Commonly these discussions take place when there is a coincidence of internal carotis stenosis and coronary artery disease. The difference in our case was that there was a coincidence of right common carotid artery stenosis with coronary artery disease.
METHODS:A 56 years old man, who had angina pectoris. He had no comorbidities except being a smoker. a coronary angiography was performed and as result we descised to perform a coronary artery bypass. In the physical examination there was a murmur over the right carotis artery. The carotis artery angiography showed a critical stenosis in the right carotis artery unsuitable for a stent. In the operation we performed a cabgx5 and aorto right common carotis bypass with a 6 mm ringed PTFE graft. After a eventless period of 7 days the patient was discharged.
RESULTS: The atherosclerotic stenosis of the branches of arcus aorta are seen less than other peripheric vascular diseases.Clinical examination, doppler ultrasound, arteriography are enough for the diagnosis of these cases. The creaton of sufficient collateral circulation of the counterside carotid artery and vertebral arteries by slowly develloping atherosclerosis in the common carotId artery result weak sypmpthoms. Especially in cases with carotis stenosis and coronary artery disease the high rate of neuroligical complications increases the importatance of simultaneous intervention. The managment of

cardiac surgery in patients with carotis artery stenosis is contested.The first simultaneous intervention was described in 1972 by Bernard et al.. Mackey et al. suggested 3 differant ways for the managment of surgery. Those are simultaneous, staged and reverse staged interventions, but there is no consensus already. The incidence of stroke in patients with no diagnosis of carotis disease is 0.2% to 8%. Stroke after coronary bypass increases the risk of mortality 1-3%.
CONCLUSIONS: To decrease mortality and neurological morbidity, simultaneous surgery in coronary and common carotis artery lesions is important. By two staged surgery there will be need to resternotomy and the risk of stroke, morbidity and mortality will be increased.

aorta-right carotis artery bypass



PP-411 A NEW SHUNT TECHNIQUE DURING CAROTID ENDARTERECTOMY

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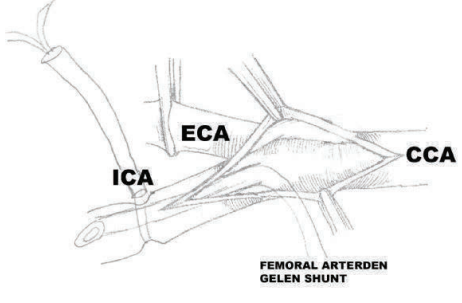
OBJECTIVE: Classical shunt techniques sometimes may impede carotid artery surgery. Arteriyal inflow from femoral artery catheter directly placed to internal carotid artery without using any stopcock provides 250-300 ml/min flow during the surgery. Brain protection can easily obtained at this shunt flow and neurological deficits are avoided.

new shunt



new shunt technique

PP-412 VAGAL PARAGANGLIOMA

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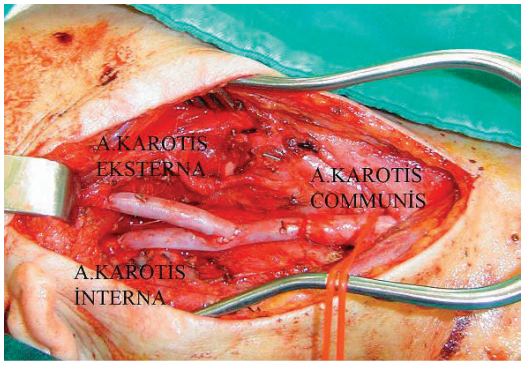
OBJECTIVE:agal paragangliomas are unusual tumors arising from nests of paraganglionic tissue within perineurium at various site of vagal nerve. These tumor has more cephalic localization than glomus caroticum tumors. Tumor usually asemptomatic but sometimes 9,10,11,12. cranial nerve involvement occur. We have performed a surgery to vagal paraganglioma which is recognized as glomus caroticum tumor preoperatively. Major arterial reconstruction may required during the surgery. 10 and 12 cranial nerve palsy after surgery almost inavoidable.

postoperatif figure



PP-413 THORACIC PENETRATING DEVICE INJURIES: WITHOUT HEART INJURES, CARDIAC TAMPONADE CONCEPT ACCURRING

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OBJECTIVE: Without cardiac injures tamponade clinic is rarely seen.In this article after being injured by any device or cutting on making hole tamponade concept occured depending 4 th intecostal artery hemorrhage and opening pericardial hole hemipericardium.
METHODS: To a patient who came to emergency service after sharp object injury, tube was applied because of hemotorax. On developing pericardial tamponade he was taken to operation. After sternotomy cardiac injury was not observed. A hole was seen in pericard. Active bleeding was observed in the fourth intercostal artery. Depending on this bleeding it was understood that hemothorax and tamponade from the opened hole developed. Hemostasis was provided by applying ligation to intercostal artery. Any air leak was taken under control by mendin of lung parenchyma. On recovering tamponade clinic, two drains were put to left thorax and mediastene. Having closed the sternum, the operation was ended.
CONCLUSIONS: It must not be forgotten that although after penetran sharp object injury of thorax

tube thoracostomy is seen, tamponade clinic can be occured in patients.

PP-414 POSTBYPASS EXTENSIVE ASCITES DUE TO SPLANCHNIC BYPASS AND THE EFFECTIVENESS OF HYPERALIMENTATION TREATMENT

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OBJECTIVE: In tissues which ischemic for a long time, venous and lymphatic drainage regresses due to ischemia. After revascularization, reperfusion could cause, postbypass edema in the adaptation period. Reperfusion edema may represented after the splanchnic bypass with ascites, abdominal distension, liver and kidney function impairment. In this article,we are reporting the hyperalimentation treatment and its results for the common ascites and hepatorenal syndrome, after truncus coeliacus (TC) and superior mesenteric artery (SMA) bypasses.
METHODS:A 74 year-old female patient was admitted to our clinic with the complaints of postprandial pain, cytophobia, weight loss, nausea and vomiting. Operation was planned according to the current findings of the patient who had a history of failed endovacular intervention towards TC and SMA previously. In the operation 16/8 mm bifurcated Dacron graft's proximal end was anastomosed to the aorta. Another 8 mm PTFE graft was prepared and proximal end of this graft was anastomosed to the splenic artery. Distal end of PTFE graft was anastomosed to the hepatica propria artery. Then one arm of the bifurcated graft anastomosed to the middle part of the 8 mm PTFE graft. The second leg of bifurcated graft passed behind of pancreas, then was anastomosed to the SMA.
RESULTS: The patient was extubated in the 14th postoperative hour. In abdominal ultrasonography which was done due to liver and kidney function test in the 3rd postoperative day, it was seen that portal vein flow and vascular structure were normal, although their pressures were high. Patient's current status was evaluated as hepatorenal syndrome (HRS) result of the postbypass edema. Hyperalimentation and albumin treatment was started. In examinations at the 7th postoperative day, biochemical parameters fell to normal limits. patient was discharged with normal kidney and liver function tests in the postoperative 18th day. Control examinations in the postoperative 6th months and postoperative first year were normal and grafts were patent in the abdominal tomographic angiography.
CONCLUSIONS: Postbypass edema which develops after revascularization of the splanchnic arteries may cause ascites and hepatorenal syndrome. We hypothesized that a protein-rich high-calorie diet which will increase the plasma oncotic pressure would be beneficial especially in the treatment of reperfusion syndrome which develops after the transperitoneal approach.

PP-415 PRIMARY LYMPHANGIOMA CASES THAT ARE RARELY SEEN ARE AN ENTITY WHICH SHOULD BE CONSIDERED IN THE DIFFERENTIAL DIAGNOSIS OF RETROPERITONEAL MASSES. HERE, WE PRESENT CLINICAL, RADIOLOGICAL FINDINGS AND TREATMENT METHOD OF A RARE CASE OF INTERAORTOCAVAL

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OBJECTIVE: Cystic lymphangioma is a rare benign congenital tumor characterized by an abnormal accumulation of lymphatic fluid. It is most commonly located in mesenteric part of small intestine. It is thought to occur as a result of the proliferation and dilatation of the lymphatic sacs due to developmental defects of lymphatic vessels. Rokitansky first made the definition of a cystic mass containing lymph fluid in 1842 (1), and it was defined by Mori in 1955 after the hysterectomy for cervical cancer (2).. The recommended method of treatment is total excision due to low recurrence rate (12-17%).
METHODS:55 year-old male patient was complaining of occasional back pain. After considering the paravertebral cystic lesion as lymphangioma on MR imaging. Patients had normal physical and laboratory examination, but MR imaging revealed a lesion is lymphangioma which was 47×20 mm in size, located in the anterior paravertebral distance along L2 to L3 vertebral corpus, showing continuity through left retroaortic area to interaortocaval area, and showing no contrast enhancement. The patient was underwent elective surgery with general anesthesia. Intraabdominal access was obtained by median laparotomy incision and by passing through abdominal muscles and fascia, and abdominal aorta was reached and explored after taking intestines to the right side and passing through the right peritoneum and then through under the renal veins.The mass, which was thought to be lymphangioma approximately at the level of L1, was explored and removed after sparing the sympathetic ganglia towards posterior to the aorta and lifting abdominal aorta. The patient, who had no postoperative complication, had oral food intake at postoperative second day and was discharged with instructions on the seventh day. Histopathologic examination of excised cystic tissue revealed a tissue sample suggesting CD:31 and CD:34 positive lymphangioma.
RESULTS: Primary lymphangioma is benign neoplasm of lymphatic ducts.Retroperitoneal localization has been reported in 1% of the cases (3). Primary intraperitoneal and retroperitoneal cystic lymphangiomas are rare tumors which are generally found as small number of case reports in international literature can invade adjacent tissue and organs (4,5). Ultrasonography, computed tomography and MRI are diagnostic methods (6).The

appropriate method of treatment is complete resection (7).

CONCLUSIONS: In the literature, the recurrence rate after incomplete excision and aspiration has clearly been reported to be nearly 100% in the treatment of patients with lymphangioma. The macroscopic complete excision should be performed for the exact treatment of the lesion, as presented in our case.

MRI showing lymphangioma which was showing continuity in left retroaortic area and was hypointense on T2-AG.

PP-416 PRIMARY MYELOFIBROSIS THAT CAUSING PERICARDIAL EFFUSION: A CASE REPORT

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OBJECTIVE: Primary myelofibrosis is a myeloproliferative neoplasm characterized by stem cell-derived clonal myeloproliferation, abnormal cytokine expression, bone marrow fibrosis, anemia, splenomegaly, extramedullary hematopoiesis, constitutional symptoms, cachexia, leukemic progression, and shortened survival. In this case, we presented a 73-year-old male patient with a primary myelofibrosis complicated with pericardial effusion.

METHODS:CASE: A 73 year-old caucasian male patient with a history of primary myelofibrosis for two years referred to the hospital for evaluation of progressive dyspnea, malaise and chest pain. On admission, splenomegaly and bilateral pretibial edema were observed. His blood pressure was 120/70 mmHg and heart rate was 85 beats/minute;a 1/6 degree apical pansystolic murmur was heard in the examination. The patient's functional capacity was II according to the New York Heart Association classification. Heart and mediastine were enlarged on the chest X-ray. Electrocardiography (ECG) showed sinus rhythm, normal axis and nonspecific ST segment and T wave changes. Two-dimensional echocardiography (TDE) revealed a mild mitral and tricuspid regurgitation and massive pericardial effusion that not causing collapse and biatrial dilatation. Pericardiocentesis and pericardial biopsy was performed for diagnostic purposes. Six hundred ml of pericardial fluid was drained and analysis showed exuda. Pathological examination, including staining for factor VIII-positive cells, demonstrated extramedullary haematopoiesis in the pericardium. Hydroxyurea (500 mg) once a day and indomethacin (25 mg), colchicum (0,5 mg) three times a day were prescribed. Postoperative TDE revealed no abnormality. The patient is currently on follow up with medical treatment.

CONCLUSIONS: Primary myelofibrosis is a rare bone marrow disorder that is characterized by abnormalities in blood cell production (hematopoiesis) and scarring (formation of fibrous tissue) within the bone marrow. Extramedullary hematopoiesis has seldom been diagnosed in serous effusions and usually is related to miyelofibrosis in isolated reports: in ascitic and pleural fluids, pericardial effusion or simultaneously in pleural and peritoneal effusions. As shown in this case, in patients with myelofibrosis and increased silhouette on X-ray film, with or without clinical heart failure, echocardiographic examination is recommended in order to identify a possible pericardial effusion.

Figure-1

Two-dimensional echocardiography revealed massive pericardial effusion that not causing collapse and biatrial dilatation.

CONTEMPORARY SOLUTIONS FOR THE DISEASE OF AORTA

PP-418 ENDOVASCULAR TREATMENT OF RUPTURED ABDOMINAL AORTIC ANEURYSM FIRST CASE OF NEAR EAST UNIVERSITY HOSPITAL

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OBJECTIVE: Endovascular treatment of aortic aneurysms following years of background seems to be proven as one of the safe and effective options.In this paper we want to present our first case in a new established instution i.e June 2010 Near East University School of Medicine Hospital.

METHODS:67 years old Finnish nationality male patient referred to our hospital from another medical center having a suspected aortic aneurysm.Following emergent abdominal CT scan abdominal aortic aneurysm with a maximum diameter of 6.8 cm on the largest point starting 1.5 cm under the orificies of renal arteries diagnosed.Aneurysm extends to right

common iliac artery too.Left common iliac artery was safe and clear.There was also extravasation of fresh blood from aneurysm sac to abdomen.Decrease of hemoglobine also noted during his follow up.In his previous medical history we learned that he had diabetes mellitus,suffering from chronic obstructive pulmonary disease and coronaryarterydisease having two coronary stents implanted.We also by chance diagnosed a mass on his right lung upper lobe whichseems like malignant.
We implanted endovascular stent greft with bilateral iliac extension to this patient.
RESULTS: Patient recovers quickly and transferred to chest disease department for the diagnosis of his mass on his right lung upper lobe in the third day following the procedure.
CONCLUSIONS: Endovascular treatment of aortic aneurysms on selected patients as proven earlier is effective and safe.In our very new established instution with the multidisiplinary approach of Radiology,Anesthesiology and Cardiovascular Surgery departments we had a chance to perform this treatment option sucessfully and want to share this with our coleagues.

PP-419 HYBRID TREATMENT WITH STENT GRAFT OF AORTIC COARCTATION ASSOCIATED WITH MITRAL INSUFFICIENCY

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OBJECTIVE: Percutenaeous treatment of aortic coarctation has been increasing due to development of endovascular treatment techniques. Surgical treatment of cardiac pathologies associated with aortic coarctation might be performed with two incision or extraanatomic bypass in single stage. Hybrid treatment of coarctation and cardiac pathology allow anatomic repair of the coarctation and cardiac pathology with single incision in single stage. We are presenting stent graft implantation and mitral velve repair of an adult patient in single stage.
METHODS:A 20 years old male patient admitted to our hospital with dyspnea. Mitral valve insufficiency due to chordal rupture and postducyal aortic coarctation causing 66 mmHg gradient revealed in the echocardiography. Hybrid treatment planned with this findings. Firstly 14x40 mm ballon-in-ballon stent graft (NuMED Inc, Heart Medical Europe BV, Best, The Netherlands) implanted on the coarctated segment of the aorta. Then mitral valve repair operation was performed with median sternotomy.
RESULTS: There wasn't any complication in the postoperative period and the patient discharged from the hospital in postoerative 7th day. There wasn't any gradient in the coarctated segment and mitral valve functions was normal in the postoperative 3rd month.
CONCLUSIONS: Endovascular repair of aortic coarctation might be performed in adult patients. It has advantage of single stage repair of cardiac pathologies associated with aortic coarctation. In future endovascular treatment of aortic coarctation might be first choice with the development of the endovascular techniques.

PP-420 A NOVEL CONTRALATERAL LEG CATHETERISATION TECHNIQUE IN THE ENDOVASCULAR TREATMENT OF GIANT ABDOMINAL AORTIC ANEURYSM

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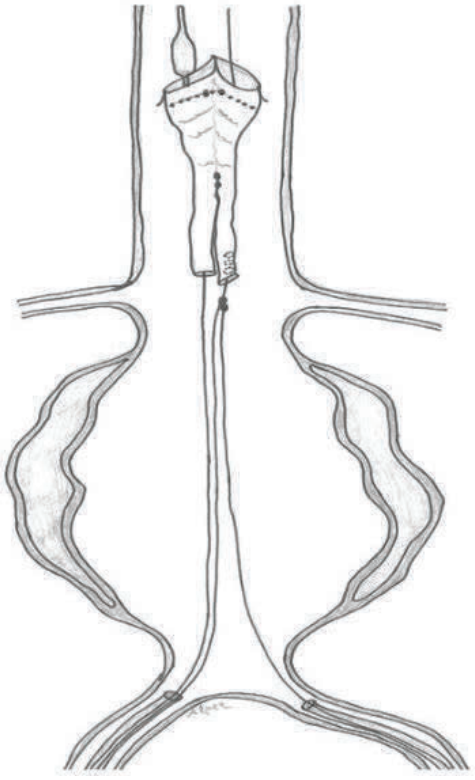
OBJECTIVE: In the endovascular treatment of abdominal aortic aneurysm (AAA) advancing the catheter into the contralateral leg after the main body implantation is an important step of the procedure. Despite facilitative system, contralateral leg catheterization in the giant AAA gets diffucult and the operation time gets longer as a results of this. Weare reporting contralateral leg catheterization technique at the suprarenal level which we have applied to in the giant AAA.
METHODS:A 77 year-old male patient admitted our service with a 8.7 cm diameter AAA. Because of a very large aneurysm diameter, we decided to use magnet system for contralateral leg cathetarization. After arteriyotomy 25.5 mm main body (Anaconda, Vascutek-Terumo, Inchinnan, Scotland) was deployed below the renal arteries. Following the control angiography, contralateral magnet wire was advanced from the left femoral artery. Magnets of intrinsic magnet wire and contralateral magnet wire were tried to be attached in the bifurcation level. Magnets could not be attached at the same plane as a result of the giant aortic aneurysm.
RESULTS: Main body was collapsed and repositioned in normal sized suprarenal aorta (Figure). Magnets were easily attached in the suprarenal region with a diameter of 22 mm. then both magnet wires carefully advanced until the magnets visualized superior of the main body. After detaching the magnets and withdrawing the intrinsic magnet wire, main body was repositioned below the renal arteries and redeployed. After control angiography, 13x140 mm. stent graft was implanted to the left iliac leg. Next, 13x140 mm stent graft was implanted to the ipsilateral leg.
CONCLUSIONS: Contralateral leg catheterisation in the suprarenal normal-sized aorta, may be applied in patient with short distance between renal artery level and iliac bifurcation level as well as giant aneuryms and it may also be applied in manipulation diffuculty due to aortic lumen tortiousity or thrombosis. The only obstacle for the applicability of this technique is main body not being able to be collapsed after it is opened and also all stents do not have a feature which allows them to be collapsed. Contralateral leg catheterisation in suprarenal aorta should be thought as an alternative technique especially in subject with manipulation difficulty.

Figure



Attachment of two magnets in the suprarenal aorta.

PP-421 A GIANT PSEUDOANEURYSM TREATED WITH ENDOVASCULAR STENT GRAFT

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OBJECTIVE: Anastomotic iliac aneurysms after surgical repair of abdominal aortic aneurysms are seen rarely but associated with a significant morbidity and mortality. Endovascular stent repair can be done less mortality and morbidity.
METHODS:A 62 years-old woman underwent ruptured abdominal aortic aneurysm (AAA) open repair in 2009. The operation was performed with an aorto-bi-iliac Dacron graft. Two years later, during her routine gynecological examination indicated a retroperitoneal mass. She was referred to our clinic and diagnosis of a giant (11.8x 9.7 cm) (Figure 1,2,3) anastomotic pseudoaneurysm at the junction of the left common iliac artery and the dacron graft was made on the basis of contrast enhanced computed tomography (CT)(Figure 1,2,3). The patient was discharged from the hospital two days after surgery and patient is followed for 2 month without any complication.
RESULTS: Anastomotic pseudoaneurysm is a well-known complication after arterial revascularization procedures. The progression of atherosclerotic disease, wound infection, chronic hypertension, and weakness of the host artery are possible causes for its development(2). In a patient with a past medical history of an abdominal aortic aneurysm open repair, clinical findings, such as abdominal pulsatile mass, intra-abdominal bruit, and murmur and acute symptoms of congestive heart failure, can lead to the diagnosis of an anastomotic pseudoaneurysm. Our patient has no symptoms and it was found during routine gynecological examination.
If pseudoaneurysm is suspected and the patient condition allows, CT scan is the first-line investigation, as it will identify the cause, the location and extent of bleeding that has occurred(3). It may also allow differentiation between arterial and venous injury as well as determining whether active bleeding is still present. We performed contrast enhanced CT angiography to determine the pathology. CT angiography revealed huge pseudoaneurysm (11.8x 9.7 cm) (Figure 1,2,3,4) which was the one of the biggest pseudoaneurysm in the literature.(1,2,4,5) Open techniques have been proposed for the treatment of complex aorto-iliac disease, but these cases involve high risks of bleeding due to possible tissue adhesions, wound infection, and mortality(6,7,8). We think that endovascular treatment has some advantages according to open surgery such as ignoring the high risks of open surgery, the patient performing the treatment under local anesthesia, decrease bleeding, need for blood transfusion, operative time, and infection, providing early discharge in intensive care unit and hospital (1,5,10).
CONCLUSIONS: Endovascular treatment appears to be an effective and minimally invasive alternative to open surgery for a giant anastomotic pseudoaneurysm after an aorto-bi-iliac dacron graft bypass.

PP-422 EXTENDED ENDOVASCULAR STENT GRAFTING FOR CONCOMITANT THORACIC, ABDOMINAL AND ILIAC ANEURYSMS

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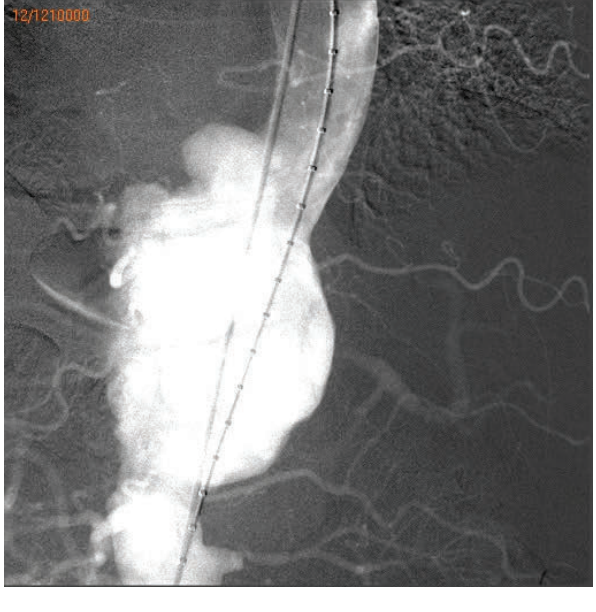
OBJECTIVE: Endovascular repair of aortic aneurysms has been in practice over the past 2 decades. Endovascular aortic repairment of the aorta has significiantly lower mortality and complication rates when compared to open repair.
METHODS:A 65 years old asymptomatic man with a medical history of hypertension was referred to our clinic with the diagnosis of a thoracoabdominal aneurysm that incidentally seen during lumbar MRI. Subsequently a contrast-enhanced CT was performed that demonstrated dilatation of the descending thoracic aorta to approximately 69 mm and dilatation of the abdominal aorta to a maximum diameter of 98 mm under the renal artery level. Tomography also revealed bilateral iliac aneurysms. After discussing the therapeutic options with the patient we decided

endovascular treatment. The diagnostic coronary angiography and aortagraphy performed by left radial approach. Under general anesthesia the right and left femoral arteries were exposed and intraducer sheaths were inserted into the aorta for endograft insertion. First 40*40*167 mm graft-stent was inserted to the thoracal aneurysm. 46*46*112 mm another graft-stent was left over the superior mesenteric artery so the celiac artery was covered. Abdominal aortic aneurysm was covered from distal of the renal arteries to right iliac artery with a pantaloon graft-stent. 2 left leg extension graft-stents used because of jumping. Bilateral iliac aneurysms also succesfully treated with graft-stents. A total of 7 endografts were deployed. Angiogram performed after completion, confirmed the proper position of stent grafts and complete exclusion of the aneurysms with no sign of endovascular leak. Patient was uneventful during the postoperative follow and discharged from the hospital on the sixth day.

RESULTS: Concomitant and long-segment thoracoabdominal and iliac aneurysm exclusion has severe complications, including paraplegia due to spinal cord ischemia, cerebral strokes, aortic and femoral artery rupture, renal failure, bowel infarction, lower extremity embolism and postimplantation syndrome. In our case in spite of stenting an extensively long segment, no severe complication occured. Anemia developed due to the hemorrhage in the operation and postimplantation syndrome (transient elevations of body temperature, CRP levels and mild leukocytosis) appeared after the procedure. No endovascular leakage seen in the post procedural contrast-enhanced CT examination.

CONCLUSIONS: Endovascular grafts have been used to treat a variaty of arterial pathologies, including aortic and iliac aneurysms. There are only few cases reported for the concomitant long-segment thoracoabdominal and iliac aneurysms that successfully treated with endovascular graft-stents in the same session. Endovascular approach with graft-stents seemed to be an option in selected patients.

Extended Endovascular Stent Grafting for concomitant Thoracic, Abdominal and Iliac Aneurysms



PP-423 940 NM LASER SAPHENOUS ABLATION RESULTS WITH LONG-TERM DUPLEX EXAMINATION FOLLOW-UP

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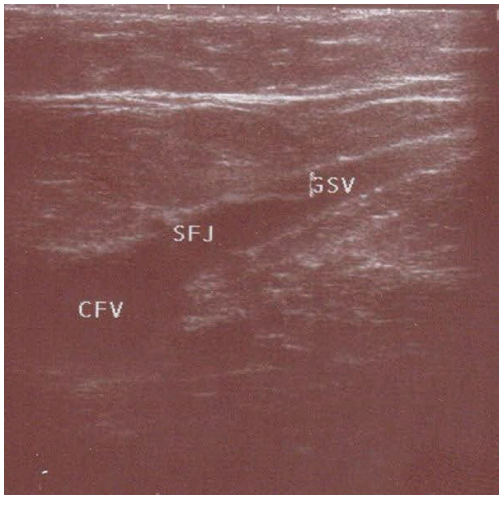
[2]Department of Cardiovascular Surgery, Akdeniz University, Antalya, Turkey

OBJECTIVE: This retrospective study aimed to evaluate the efficacy and durability of endovenous laser ablation (EVLA) with 940 nm wavelength and to present results of our 68 EVLA procedures in the treatment of incompetent great saphenous veins (GSV) and small saphenous veins (SSV) with at least one-year follow-up.

METHODS:A total of 68 incompetent GSVs and 4 SSVs were treated by EVLA, using 940 nm wavelenght. EVLA was attempted in 68 limbs. Patients underwent standard clinical and duplex follow-up examinations with an average of 16 months (range 12 to 21 months) after EVLA. Patient satisfaction regarding the procedure was assessed with the use of a visual analog scale (range 1 to 100).

RESULTS: Post-procedural duplex scans showed total occlusion of the treated GSVs in 56 patients (97%) and sub-total occlusion in 2 (3%) patients. For SSVs, post-procedural duplex scans showed total occlusion in 4 (100%) patients. The average pre-procedure modified clinical picture, etiology, anatomic distribution and pathophysiology (CEAP) clinical score improved significantly after 12 months. Complications from our series included swelling and induration in 3 patients (5%), skin pigmentation in 3 patients (5%). Patient satisfaction with the surgical outcome was 83,17 % (±11,79, n=58).

CONCLUSIONS: Our long term results with EVLA have been satisfying, and this study has reaffirmed the effectiveness and durability of EVLA with 940 wavelength in the treatment of GSV insufficiency.



Duplex finding in the groin; an open, competent sapheno-femoral junction (SFJ) with a 3-cm patent terminal great saphenous vein (GSV) segment. (CFV denotes common femoral vein.)

Table 1

Complications	Number (%) of patients
Pigmentation	3 (%5)
Swelling and induration	3 (%5)
Recurrent varicosities	3 (%5)
Neovascularization	0
Deep vein thrombosis	0

List of complications of all EVLA performed after 1 year postprocedurally.(EVLA denotes Endovenous Laser Ablation)

PP-424 OUR INITIAL EXPERIENCE FOR THE TREATMENT OF ABDOMINAL AORTIC ANEURYSMS WITH EVAR METHOD

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OBJECTIVE: Primary treatment method for abdominal aortic aneurysms is surgery. However endovascular aortic repair (EVAR) method that is an alternative to surgery may be a choice for patients with advanced age and comorbid diseases. Nowadays, EVAR is increasingly used for the treatment of AAA. We wanted to share first 5 EVAR cases in our clinic.
METHODS: Case 1: Abdominal aortic aneurysm was detected in 83 years old male patient with complaints of abdominal pain, fatique and weight loss. In abdominal computed tomography (CT), aneurysmatic dilatation in abdominal aorta below renal arteries was detected. Patient had great surgical risk due to chronic obstructive pulmonary disease and Alzheimer's disease so we performed EVAR with aortobiiliac stent graft. The patient was discharged postoperative 2 nd days.
Case 2: Abdominal aortic aneurysm was detected in outpatient control of 48 years old female patient with the complaint of abdominal pain. In abdominal magnetic resonans imaging, mycotic aneurysmatic dilatation was detected in abdominal aorto below renal arteries. We decided to perform EVAR method because patient was morbidly obese. EVAR was performed to patient. The patient was discharged postoperative 2 nd days.
Case 3: AAA was detected in 82 years old patient with abdominal pain. Approximately 8 cm fusiform aneurysm was seen in abdominal CT. We decided to perform EVAR because patient was advanced age, old serebrovascular accident and poor general condition. EVAR method with aortobiiliac stent graft was performed. The patient was discharged postoperative 3 th days.
Case 4. AAA was detected in 66 years old patient with abdominal pain. Approximately 6 cm in width aneurysm was seen in abdominal CT. We decided to perform EVAR because patient had advanced stage COPD. EVAR method with aortobiiliac stent graft was performed. The patient was discharged postoperative 4 th days.
Case 5. AAA was detected in 74 years old female patient with abdominal pain and poor general condition. Approximately 7 cm in width aneurysm was seen in abdominal CT. Coronary bypass grafting surgery was performed for ischemic heart disease 2 months ago so we decided to perform EVAR. EVAR method with aortobiiliac stent graft was performed. The patient was discharged postoperative 3 th days.
RESULTS:EVAR was successfully performed for all patients. Any complication was not seen in early stage. Patients were discharged postoperatively maximum 4 th day. Hospital mortality was not seen.
CONCLUSIONS: We believe that as the experience of endovascular repair of AAA surgical equivalant results will obtain.

PP-432 MANAGEMENT OF AN ASCENDING AORTIC ANEURYSM ASSOCIATED WITH A BICUSPID AORTIC VALVE AND A COARCTATION IN AN ADOLESCENT

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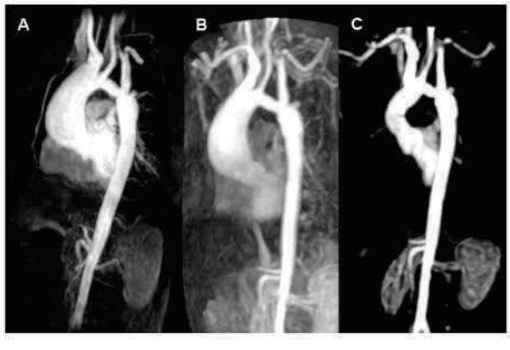
OBJECTIVE: Ascending aortic aneurysms are commonly associated with bicuspid aortic valves in adults but are rarely seen in childhood. We now report the management of an ascending aortic aneurysm in a 12 year old male with an associated bicuspid aortic valve and a coarctation.



(A) MRI shows the aortic coarctation and ascending aort aneurysm. (B) MRI shows the diameter of ascending aorta increased from 45 to 48 mm after two years from operation. (C) MRI shows the ascending aortic replacement after the second-stage surgery.

PP-433 ENDOVASCULAR ELEPHANT TRUNK COMPLETION

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OBJECTIVE: Aortic aneurysms affecting the aortic arch and more distal aorta are challenging. Single-stage operations involve large incisions and substantial mortality risk. The two-stage approach requires a median sternotomy and under hypothermic circulatory arrest, placement of an elephant trunk graft with or without arch repair. The second-stage procedure (completion operation) requires a left thoracotomy or thoracoabdominal approach to extend the elephant trunk graft to the healthy distal aorta, with possible reimplantation of intercostal or visceral vessels. Mortality rates are reported to be 5.1% for the first-stage operation, 3.6% during the interval period (of which 75% were due to rupture), and 6.2% for the second-stage operation.
Endovascular procedures have been widely used to treat infrarenal aneurysms and thoracic aortic aneurysms. Use of these technologies to complete elephant trunk graft repairs avoid thoracotomy or thoracoabdominal incision, diminish the complication rates but have uncharted long-term results. Limitations exist with respect to anatomy.
METHODS:A 66 year old female patient was sent to our clinic for endovascular elephant trunk completion from an outer center. Ascending aortic and arch replacement (Bentall + elephant trunk) along with one vessel coronary bypass was performed 7 months prior to admittance. Descending aorta and abdominal aorta down to celiac trunk was aneurysmatic maximally 8X7 cm in diameter with thrombus formation along the wall. Under general anesthesia 'Medtronic Vailant Thoracic' 46X212X224 mm graft was positioned proximally in the elephant trunk. Soon 'Medtronic Vailant Thoracic' 32X192X204 mm graft was positioned proximally inside the first graft, and distally extending down to celiac trunk. There was no leak detected. Postoperative course was uneventful. The patient was discharged on postoperative third day. There was lymphatic leakage detected on left femoral insicion which was surgically treated after 1 month. 3 months follow-up was uneventful with no leakage detected on tomography.
RESULTS: Endovascular completion of elephant trunk was successfully performed under general anesthesia with a very short length of stay in hospital compared to open surgery involving a thoracoabdominal incision.
CONCLUSIONS: Completion elephant trunk procedure, whether open or endovascular, remains a challenge. Although long term results are still missing, staged procedures using endovascular grafting to treat the descending thoracic aorta is more comfortable and morbimortality is decreased compared to conventional techniques. Planning of the open surgical procedure, endovascular device design and the timing of the repairs must be coordinated.

PP-434 INCIDENTAL DIAGNOSIS OF SUBCUTANEOUS PULSATILE MASS OF STERNAL COLD ABSCESS OVERLYING GIANT AORTIC PSEUDOANEURYSM DEVELOPED AFTER BENTHALL PROCEDURE

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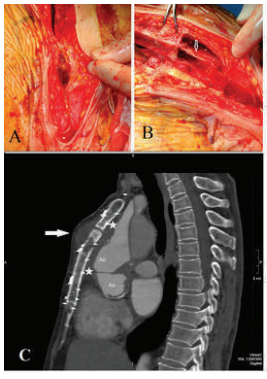
OBJECTIVE:A 62-year-old male patient that had a Benthall procedure three years ago due to type I aortic dissection presented at our cardiovascular surgery department with a sternal mass.
METHODS:A motionless, nonfluctuant, pulsatile, pre-sternal swelling with a size of 4x5 cm was found at the level of manubriosternal junction. Thorax CT scan revealed cold abscess extending from subcutaneous tissue to the medullar component of sternum, overlying a retrosternal giant aortic pseudoaneurysm (between two asterisks) that originated from aortic root. Empiric anti-tubeculous treatment was started. Excision of the sternal cold abscess and repair of the aortic root with pledgeded sutures at the origin of pseudoaneurysm were performed. An Intraoperative photograph demonstrates the drainage of the brownish cold abscess material, and represents two pouches of cold abscess which were communicated with a pore. Although tissue cultures were found to be clean, anti-tuberculous drugs were continued, followed up for eight weeks by a negative-pressure therapy using a vacuum pump dressing.
RESULTS: After eight weeks of clinical observation, outcome was satisfactory and no further surgery was needed.
CONCLUSIONS: Proven sources of infections at different institutions include contaminated porcine valves and municipal water supply, but the mode of transmission in the great majority of patients remains unclear. There are two principal clinical forms of atypical mycobacterial infections after cardiac operations, endocarditis and sternal osteomyelitis. The latter has characteristics resembling tuberculotic "cold abscess." Specialized laboratory testing is necessary to confirm the diagnosis, and surgeons may have to take the initiative to request special microbiological investigation in cases where infection is clinically suspected but routine cultures are reported as "negative." Negative-pressure therapy using a vacuum pump dressing may help to prove satisfactory outcomes after surgical and medical treatment in clinically suspected patients of sternal mycobacterial infections.



An Intraoperative photograph demonstrates the drainage of the brownish cold abscess material (A), and represents two pouches of cold abscess which were communicated with a pore (B, Arrow).
Thorax CT scan revealed cold abscess extending from subcutaneous tissue to the medullar component of sternum (C, Arrow), overlying a retrosternal giant aortic pseudoaneurysm (between two asterisks) that originated from aortic root

PP-435 SACCULAR THORACIC AORTIC ANEURYSM COMPRESSING LEFT ATRIUM IN A PATIENT WITH SYMPTOMS OF HEART FAILURE

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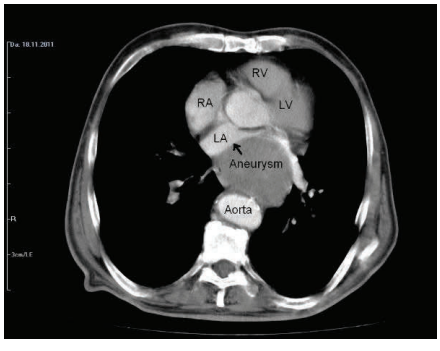
OBJECTIVE: Extrinsic left atrial compression is an uncommon source of hemodynamic compromise that can be caused by many mediastinal structures including bronchogenic cysts, carcinoma,leiomyoma lymphoma, thymoma, aortic aneurysm and diaphragmatic hernia(1,2). Hemodynamically compromising left atrial compression by an aortic aneurysm is a rare entity. We present a case of descending thoracic aortic aneurysm causing congestive heart failure due to extensive left atrial compression.

METHODS:71 year-old man presented to our clinic with progressive dispnea and fatigue lasting for two months.The patient had had a history of hypertension for 10 years but no history of cardiovascular disease.His systolic blood pressure was 80 mmHg and heart rate was 110 beats/min regular.The electrocardiography showed normal sinus rhythm. Initial laboratory tests including biochemistry, electrolytes and complete blood count were within normal ranges.Transthoracic echocardiography(TTE) heterogeneous mass as large as 2.9 × 4.1 cm occupying the left atrium. Left and right ventricle systolic functions were preserved.After clinical stabilization of the patient's status, for further investigation the transesophageal echocardiography was performed. This imaging demonstrated the mass localized in extracardiac region and compressing left atrium.Computed tomographic(CT) scanning revealed a saccular aneurysm of the descending thoracic aorta constricting the left atrium with a diameter of 73 mm.The patient was urgently referred for surgical management of the aneurysm.

RESULTS: The left atrium is an inferoposteriorly located cardiac chamber with a low intraluminal pressure and relatively thin wall.Thus,the left atrium is vulnerable to pressure from adjacent structures such as aortic aneurysm.Proximity and encroachment are defined as conditions that may not lead to symptoms, whereas compression causes severe inflow obstruction resulting in hemodynamic instability and symptoms such as hypotension, hypoxia, tachypnea, and tachycardia, like in our case.TTE is still the routine imaging technique for determining the nature of intracardiac and pericardial masses but sometimes further imaging methods are required because acoustic access of TTE to mediastinal structures is limited.Saccular types of aneurysms of the thoracic aorta are mostly located at the descending thoracic aorta.When a structure behind the left atrium is diagnosed using TTE,an additional CT scan can give more detail about this mass and more insight into its origin so should be performed in these patients.We present an infrequent case of extrinsic left atrial compression caused by a descending saccular thoracic aneurysm diagnosed by TTE.

CONCLUSIONS: Particularly in patients who admitted with symptoms of heart failure, compression to the left atrium should be kept in mind and early diagnosis and treatment are important in these patients.

Computed tomography showing the aneurysmal descending aorta compressing the left atrium (arrow).



PP-436 GIANT ASCENDING AORTIC ANEURYSM FOLLOWING BICUSPIT AORTIC VALVE REPLACEMENT

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OBJECTIVE: Giant ascending aortic aneurysm, defined as an aneurysm more than 10cm in diameter, and following bicuspit aortic valve (BAV) replacement is rare. We aim to present a patient with giant ascending aortic aneurysm 168mm in diameter who underwent aortic valve replacement with a prosthetic valve for congenital bicuspid aortic valve about 16 years ago.

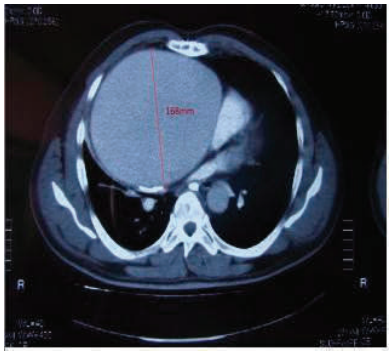
METHODS:A 37-year- old man was referred to our hospital with severe and increased angina pectoris. He had aortic valve replacement with a mechanical prosthetic valve for BAV 16 years ago, and has warfarin therapy. He had not been controlled until that time. Ascending aortic diameter was found 168mm at computed tomography. There was prosthetic valve insufficiency with two- dimensional and color doppler echocardiography and other cardiac fonctions were normal. We planned an emergency surgery for the giant aneurysm with serious risk of rupture. The operation was performed under cardiopulmonary bypass with cannulation of the right femoral artery and right atrium via the right femoral vein. Cardiopulmonary bypass was started before sternotomy and the patient was cooled at 24

centigrade degree. Median resternotomy was performed carefully because of giant aneurysm attached with sternum. However, aneurysm was ruptured during sternotomy and patient was cooled at 19 centigrade degree and total circulatory arrest (TCA) was begun. Aneurysmal aortic segment was resected and put on cross clamp the proximally of the aortic arcus under TCA. We performed Bentall procedure to replacement aortic valve and ascending aorta. There was subaortic stenosis because of a discrete fibrous membrane, resected. We used a 30-mm dacron tube graft and 23 number aortic mechanical prosthetic valve for aortic and valvuler replacement.

RESULTS: Right brachial plexus injury was found after operation. The patient stayed in intensive care unite at six days and discharged after 20 days. Histopathology of the aortic tissue showed cystic medial necrosis

CONCLUSIONS: The cohesions for previous cardiac surgery may enable to expansion and prevent of rupture of aortic aneurysms. In this manner the giant aneurysms may ocurr. The treatment of giant ascending aneurysms carries a high mortality and morbidity. We consider that the patients should be followed regularly for aortic dilatation and aneurysm formation even if their bicuspit aortic valve is replaced. The sternotomy following femoro- femoral cardiopulmonary bypass and deep hypotermic circulatory arrest improve of survive.

figure of aneursym with CT



PP-437 DUAL EXPOSURE/REPAIR TECHNIQUE FOR THE TREATMENT OF RUPTURED SINUS OF VALSALVA ANEURYSM

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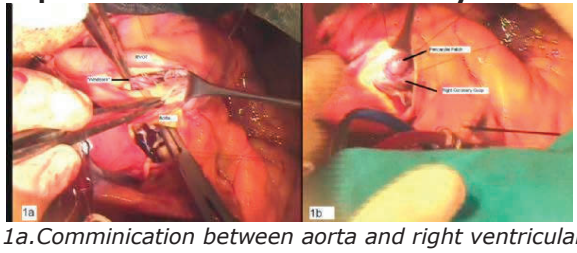
OBJECTIVE: Ruptured sinus of Valsalva Aneurysm (RSVA) is a rare disease with a wide range of clinical manifestations, from asymptomatic murmur to cardiogenic shock and death. Surgical treatment differs from simple primary closure to patching of rupture site by a dual approach.

METHODS: We describe the case of a 56-year-old man presenting with signs of right heart failure. Echocardiographic images obtained showed minimal aortic regurgitation and a "windsock" originating in the right coronary sinus of Valsalva and terminating in the right ventricular outflow tract (RVOT). Surgical repair with patch using dual exposure/repair technique was planned.

RESULTS: The patient underwent surgery under cardiopulmonary bypass. ''Windsock'' of RSVA was explored from both aorta and RVOT. Two separate pericardial patch were used to repair both end (image). He was discharged on the fifth postoperative day following an uneventful operation and postoperative course. Control echocardiography showed no communication.

CONCLUSIONS: Dual exposure/repair technique for the treatment of ruptured sinus valsalva aneurysm ensures the aneurysm sac to be closed from both ends, without leaving any communication between blood and sac thus no potential space for infection and thrombus formation was left. Using patch to close RSVA avoids deforming the aortic valve and reduces stress on the suture line. We recommend early, aggressive dual exposure/repair technique operation with patch to prevent development of re-rupture and further complications.

Ruptured Sinus of Valsalva Aneurysm



1a.Comminication between aorta and right ventricular outflow track with ''windsock'' of Ruptured Sinus of Valsalva Aneurysm seen on RVOT. 1b. Patch repair of aortic side.

PP-438 STANFORD TYPE B DISSECTION: DIAGNOSED BY TRANSTHORACIC ECHOCARDIOGRAPHY

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OBJECTIVE: Aortic dissection is an acute lethal cardiovascular deases. Stanford type A and B are divided into two. The most commonly seen symptom is abrupt onset of severe chest and back pain. Despite advances, the mortality of aortic dissection remains more than 20%. Early diagnosis are very important in aortic dissection.

METHODS: We reported a case of Stanford type B dissection diagnosed by transthoracic echocardiography.

RESULTS:A 74-year-old women was admitted to our clinic with chest and back pain. On examination, his blood pressure was 110/ 70 mmHg, and his pulse rate was 98 bpm, regularly. The ECG was normal. At the chest X-ray, cardiothoracic index was very extensive. Two-dimensional echocardiographic examination showed dilation of the descending thoracic aorta with a dissection flap at the parasternal long axis (Figure 1A) and the modified apical four-chamber views. The left atrium was subjected to compression by dilated descending aorta. At suprasternal and subcostal views, dissection flap extended from arcus aorta to

abdominal aorta and false lumen was thrombosed (Figure 1B). The left and right ventricular dimensions and functions were normal. She was referred for further treatment to a specialized center.

CONCLUSIONS: Contrast aortography is gold standard for diagnosis of aortic dissection. However, computed tomography, nuclear magnetic resonance imaging and echocardiography are also used. Because of the implementation at the bedside and low-risk of the transthoracic echocardiography are becoming increasingly important.

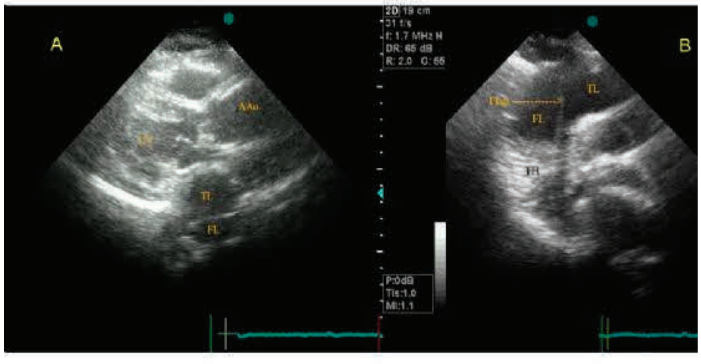

Figure 1: A: The parasternal long axis showed dilation of the descending thoracic aorta with a dissection flap. B: At suprasternal views, dissection flap extended from arcus aorta to descending aorta and false lumen(FL) was thrombosed(TH). AAo: Ascending aorta, TL: True lumen.

PP-439 ACUTE SIALADENITIS FOLLOWING OF ABDOMINAL AORTIC CT ANGIOGRAPHY: CASE REPORT

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OBJECTIVE: Acute sialadenitis which is charactarized by sudden enlargement and tenderness of salivary glands, may occur rarely due to iodine containing intravenous contrast medium usage. Large proportion of the published cases have chronic renal failure. In chronic renal failure, reduction in the excretion of iodine may be responsible for this clinical condition. We report a sialadenitis case who has cronic renal failure as a complication after contrast media usage.

METHODS:CASE: A 61-year-old man with a history of hypertension, diabetes mellitus, and end-stage renal disease was referred to the cardiology physicians for investigation of abdominal aortic aneurysm. He had been taking hemodialysis therapy 3 times a week. He had no allergic history. Thyroid and hepatic function tests were within normal limits. At abdominal ultrasonography, infrarenal abdominal aortic aneurysm, measuring 5 cm in diameter, was detected. An abdominal aortic computed tomography (CT) angiography was performed. Abdominal CT showed aneurysm, measuring 5 cm in maximum diameter, arising from the abdominal aorta below the both renal artery. He was administered 100 cc ioxoglate (Hexabrix 320 TM Guerbert, France, low osmolar, %60 iodine containing contrast media). The aneurysm was decided to be followed periodically. 12 hours after the procedure, the patient had a complaint of swelling in the anterior-superior neck. At physical examination pulse rate was 64/min, blood pressure was 120/60. The temperature was normal. At palpation, bilateral submandibular and parotid glands' enlargement and tenderness were detected. Other systems were normal. At neck ultrasonography, bilateral submandibular and parotid salivary glands were found to be enlarged, heterogenic with increased vascularity. In blood tests, white blood cell was 9,300 (normal values: 4,800-10,000), ESR was 40 mm/h (1-10), CRP was 34 mg/L (normal value <10). The patient's sialadenitis was thought to be due to the contrast medium which was used during CT angiography. Hemodialysis procedure continued. No other treatment began and the patient's symptoms disappeared in two days.

CONCLUSIONS: Sialadenitis is a rare complication that may occur after contrast medium usage. Very few cases were reported in literature. We think the knowledge of the association between the sialadenitis and contrast medium usage will increase the reports of such cases.

PP-440 ABDOMINAL AORT ANEURYSM RUPTURE PRESENTING WITH TENDER LOWER RIGHT QUADRANT PULSATILE MASS

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OBJECTIVE: Ruptured abdominal aortic aneurysm (AAA) is one of the most fatal surgical emergencies, with an overall mortality rate of 90%. Most AAAs rupture into the retroperitoneal cavity, which results in the classical triad of pain, hypotension, and a pulsatile mass. However, this triad is seen in only 25-50% of patients, and many patients with ruptured AAA are misdiagnosed. It is likely that different sites of rupture of AAA determine a variety of common and uncommon clinical presentations, the recognition of which can save many lives. We report a case of ruptured AAA presenting with lower right quadrant and back pain.

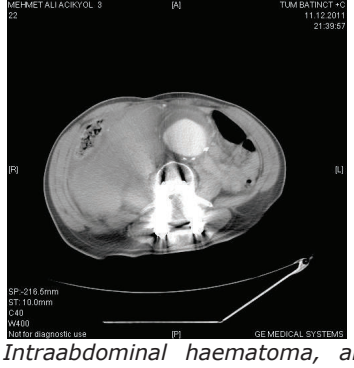
METHODS:A 58 year-old male patient with a history of hypertension and tobacco use was admitted to ER with lower right quadrant and back pain which onset 1 hour ago. On examination the patient was diaphoretic, agitated and a palpable pulsatile mass in the right lower quadrant with severe tenderness was

noted. Distal lower extremity pulses were weakened as well. His blood pressure was 100/50 mm Hg and pulse was 110 bpm. An immediate abdomen computed tomography (CT) with contrast injection was scheduled and performed. There was a dramatical drop in the patient's haemoglobin level (from 12 to 9 g/dl) during the period of CT scanning. Rapid isotonic saline infusion was initiated while blood transfusion preparations were lasting.

RESULTS: Computed tomography revealed an abdominal aortic aneurysm measuring 72mm in maximal diameter and a retroperitoneal hematoma, suggesting rupture of the abdominal aortic aneurysm. Periaortic blood was extending into the perirenal space as well. Intramural thrombus in the aortic wall was noticed in the contrast ehnacement phase. The patient was immediately transferred to a center capable of cardiovascular surgery but unfortunately the patient developed hemodynamic collapse following hypovolemic shock and died during the transfer.

CONCLUSIONS: Ruptured abdominal aortic aneurysm (AAA) continues to be one of the most lethal vascular pathologies we encounter. Its management demands prompt and efficient evaluation and repair. Despite advancements in surgical and endovascular therapy, the variability of symptoms in presentation may delay accurate diagnosis. Therefore prompt evaluation and repair remains the mainstay for survival.

computerised tomographic image of AAA rupture



Intraabdominal haematoma, abdominal aortic aneurysm (72 mm in size) and intramural thrombus can be noticed.

PP-441 GIANT ABDOMINAL AORTIC ANEURYSM: A CASE REPORT

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OBJECTIVE: Abdominal aortic aneurysms (AAAs) occur in up to 9% of adults >65 years of age, and of those, 96% are <6 cm. Independent risk factors have not been clearly identified. Aortic aneursym is one of the leading causes of death in older men, but the cause and the epidemiolgy has still been unresolved. We recently experienced a 62-year-old male with a giant AAA. Because giant AAAs are rarely seen and the risk of rupture increases as the size of an aneursym increases, the case has been reported and the probable management has been discussed.

METHODS: The patient with a history of smoking (1/2 package/day/40 years) was admitted with the complains of painless abdominal mass and dyspnea. Six years earlier he had noticed a painless, slowly enlarging abdominal mass. He did not seek medical attention. Physical examination revealed a pulsatile, well-defined, nontender abdominal mass and a mild bruit was heard on auscultation on the left side of the abdomen. Peripheral pulses were palpable. Abdominal ultrasonography showed a large abdominal aortic aneurysm with a large mural thrombus. Abdominal computed tomography (CT) revealed a large infrarenal aortic aneurysm (10×7 cm) with a large mural thrombus. It extended to the aortic bifurcation and proximal right common iliac artery; at this level, the aneurysm was 4×2.5 cm.

RESULTS: The patient underwent a successful open surgical repair with placement of an aortobifemoral Dacron graft. Postoperative CT scan demonstrated complete sealing of the aneurysm, and no endoleak was detected. The patient recovered uneventfully and is checked twice a year.

CONCLUSIONS: Giant AAAs are rarely seen. Although no dramatic difference has been observed between genders about the incidence (5% for men >65 years), men are more likely to have an AAA that is >=4 cm. Size is the most important factor related to likelihhood of rupture. Smoking is a strict independent risk factor. Surgery presents a challenge during surgery because aortic clamping can be difficult size. As the aneusym gets larger, its neck gets shorter and causes dislodgement of abdominal organs. All of these factors prevent endovascular approach and make surgical management challenging. Although surgical procedure has not always good results, open repair is mostly treatment of choice.

Giant Abdominal Aortic Aneurysm

Intraoperative Photo of Giant Abdominal Aortic Aneurysm

PP-442 RUPTURE OF ABDOMINAL AORTIC ANEURYSM DIAGNOSED BY TWO-DIMENSIONAL ECHOCARDIOGRAPHY

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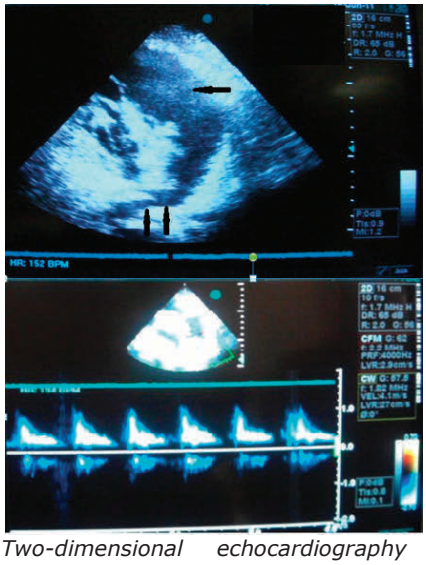
OBJECTIVE: Abdominal aortic aneurysms (AAA) occur most commonly in individuals between 65 and 75 years old and are more common among men and smokers.They tend to cause no symptoms, although occasionally they cause pain in the abdomen and back or in the legs.In this case, we presented a 71-year-old male patient with an AAA which was diagnosed by two-dimensional echocardiography(TDE).
METHODS:A 71 year-old male patient with a history of hypertension and coronary artery disease referred to the peripheral hospital for nausea, vomiting and backache.He was confused and afebrile; heart rate was 105 beats per minute; blood pressure, 90/50 mm/Hg; and respiration rate, 16 breaths per minute.His skin was cold and sweaty.He had a history of coronary bypass surgery 3 years ago. Heart and mediastine were normal on the chest X-ray.Electrocardiography showed sinus tachycardia.Transthoracic-echocardiography revealed mild mitral regurgitation with 45% ejection fraction.Due to the abdominal distantion and anemic skin we evaluated the patients abdomen with TDE.An intra-abdominal hemorrhaging with a ruptured AAA was detected.Rapid accumulation of the hemorrhagic fluid was observed within minutes (figure-1).Blood flow was observed from abdominal aorta to the intra-abdominal cavity by the continious-wave Doppler echocardiography (figure-2).White blood cell count was 7.990/µL, with 79% segmented neutrophils; creatinine was 1,96 mg/dL; and hemoglobin level was 3,6 g/dL at the time of admission.Blood transfusion was initiated, but the patient died within minutes before being operated.
CONCLUSIONS:AAA is a localized dilatation of the abdominal aorta exceeding the normal diameter by more than 50-percent, and is the most common form of aortic aneurysm.The major complication of AAA is rupture, which can be life-threatening, as large amounts of blood spill into the abdominal cavity and can lead to death within minutes.Ultrasonography (USG) is used to screen aneurysms and to determine the size, if present.Additionally, free peritoneal fluid can be detected. USG is noninvasive and sensitive, but the presence of bowel gas or obesity may limit its usefulness.Abdominal computerised tomography scan has a nearly 100% sensitivity for aneurysm and is also useful in preoperative planning, detailing the anatomy and possibility for endovascular repair.The case was interesting, as it was diagnosed by two-dimensional echocardiography.According to this result, we conclude that two-dimensional echocardiography is practical and clinically useful in screening patients with abdominal aortic aneurysms.In the literature, only a small number of these patients are identified as having aneurysms, but the low cost and brief time required suggest that routine screening in this population may be worthwhile.



Two-dimensional echocardiography revealeded intra-abdominal hemorrhaging with a ruptured aneurysm of the abdominal aorta (shown by the arrow). Blood flow was shown from abdominal aorta to the intra-abdominal cavity.

HOW TO APPROACH TO THE VENDUS SYSTEM ? – POSTER PRESENTATION

PP-443 RIGHT BRACHIOCEPHALIC VEIN OCCLUSION SECONDARY TO HEMODIALYSIS CATHETER INSERTION: AUGMENTED RIGHT SIDED EDEMA BY IPSILATERAL ARTERIOVENOUS FISTULA

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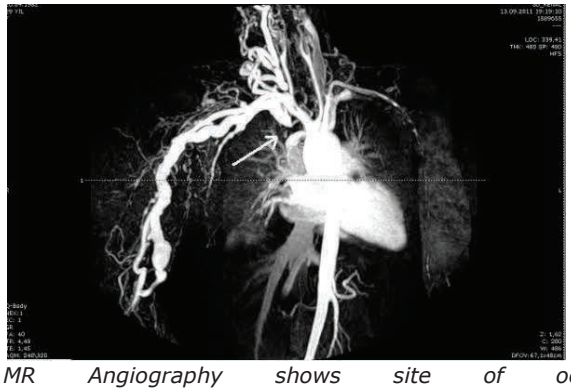
OBJECTIVE: Superior vena cava (SVC) syndrome is a collection of symptoms caused by blockage central veins. Symptoms include dyspnea, hoarseness, coughing and swelling of the face, neck, upper body, and arms. Central venous thrombosis is an important complication of venous catheterization and is rarely associated with superior vena cava syndrome. We report a case of right-sided SVC syndrome secondary to catheter insertion in a young woman with chronic renal failure on hemodialysis.
METHODS:A 29 year-old woman, with a history of postpartum cardiomyopathy and renal failure for the last 2 years, was admitted to our clinic for severe right sided upper body swelling. She had a history of several central catheter placements into the right internal jugular vein 2 years ago. She had been hemodialysed via A-V fistula on her arm for the last 2 years. Problems with arteriovenous fistula started 1 month ago along with symptoms of swelling of right side of the face and right arm. An unsuccessful catheter thrombectomy was tried a month ago. Since then, hemodialysis has been continued through a catheter which inserted into the left internal jugular vein. The MR angiography showed occlusion of right brachiocephalic vein right at the junction with innominate vein (figure 1).

RESULTS: The operation was done through a median sternotomy without cardiopulmonary bypass. The site of occlusion identified as a fibrotic stenosis at the level of junction of right and left brachiocephalic veins with a lenth of about 3 cm. The fibrotic segment was divided and patent segment was prepared for anastomosis. A mm PTFE graft was interposed between this segment and right atrial appendix using a side clamp during right atrial anastomosis. Postoperatively, the swelling of face and right arm decreased considerably. Patient was discharged from the hospital without any complications and continued dialysis from right sided fistula 1 month after surgery.
CONCLUSIONS: The development of central venous obstruction can be acute, secondary to cathether related thrombosis or may develop later due to fibrotic occlusion of central veins due to intimal trauma. The goals of treatment are to relief symptoms, minimize the risk of complications and providing long-term patency of the SVC. The bypass of occluded vein to right atrium with a PTFE graft is a safe and simple method especially when it is not possible to do an anatomic reconstruction due to the length of obstructed segment.

Figure 1



MR Angiography shows site of occlusion

PP-444 DIAGNOSTIC AND PROGNOSTIC VALUE OF TROPONIN I IN ACUTE PULMONARY EMBOLISM

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OBJECTIVE: To determine the value of cardiac troponin I (cTnI) in identifying the right ventricular dysfunction and severity of pulmonary embolism and its correlation to the clinical in-hospital outcome.
METHODS:30 patients diagnosed as acute pulmonary embolism by V/Q scan or CT pulmonary angiography d D-Dimer levels were measured for all patiewere enrolled in the study. Quantitative Troponin I annts. Other investigations such as Echocardiography, resting ECG, ABG and chest X ray were also done.
RESULTS: Among the 30 patients with cTnI measurements, 9 patients (30%) had abnormally elevated values and had RVD>2.5cm, indicating that positive cTnI tests were significantly associated with RVD (p = 0.000). The elevated cTnI was not significantly correlated with elevated ESPAP (p=0.192). Regarding the risk of use of Mechanical ventilation, it was significant in patients with positive troponin I, with significant odds ratio 16.00 (95% CI= 1.45-176.45) compared to patients with negative values. There was also significant risk relation regarding the long in-hospital stay (more than three weeks) in patients with positive troponin I, with significant odds ratio 7.5 (95% CI= 1.3- 45) compared to patients with negative values. While there was no significant risk relation to the use of thrombolytic therapy in either patients with positive or negative troponin I, and the odds ratio was 1.250 (95% CI= 0.233-6.696). Mortality was 10% in the patients studied (3 patients) and two of them had elevated cTnI with non significant risk relation.
CONCLUSIONS:cTnI is elevated in 30% of patients with pulmonary embolism and with high significant association with RV dilatation. cTnI measurements in patients with acute PE is valuable in identifying cases at increased risk for the need of mechanical ventilation and prolonged hospital stay.

PP-445 A DIFFERENT APPROACH TO LEFT RENAL CELL CARCINOMA WITH TUMOR THROMBUS EXTENSION INTO THE VENA CAVA INFERIOR

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OBJECTIVE: We report a case of advanced renal tumor with intracaval neoplastic extension, so-called 'tumor thrombus' treated with left subcostal (hemi-Chevron) abdominal incision instead of bilateral subcostal incision (Chevron technique) which is used for radical nefrectomy and tumor extirpation.
METHODS:A-63-year old male patient admitted to the outpatient clinic with the complaints of fatigue and leg edema. Echocardiography revealed a mass in the right atrium, 3X9,5cm in diameter extending and filling the inferior vena cava (IVC). Abdominal CT and MRI revealed a 6x6x6cm mass invading kidney and a tumor thrombus extending through the IVC reaching up to the right atrium. Tumor excision started with a subcostal laparotomy. Cavatomy was performed starting from the cul-de-sac of renal vein and distal segment of tumor thrombus was fixed with a prolen suture. Median sternotomy was done without combining the laparotomic incision. Aorta and right atrium were canulated with arterial and vena cava superior canules, respectively. IVC canule was inserted from the right femoral vein placing the tip distal to the renal vein. Extracorporeal circulation was maintained during cardiac arrest and ascending aorta was cross clamped. All of the tumor thrombus was extracted by blunt dissection without liver deviation and cavatomy on IVC body under complete circulatory arrest. The tumor was totally extirpated with gradual blunt dissection towards to cranium and removal of the tumor from right atrium with marker suture. The femoral vein canule was again clamped

and CPB was started. IVC flow to the right atrium was inspected carefully to ensure good IVC flow. TEE was performed to ensure that there was no air or thrombus inside the heart. The atrial and caval incisions are closed.

RESULTS: The patients' hospital follow-up was uneventful and he was discharged at the 18th postoperative day. Follow-up visit at the first month was normal.

CONCLUSIONS: For cavoatrial thrombuses arising from renal tumors, a sternotomy and chevron etc. incision (bilateral subcostal) is frequently applied. However, a left 'hemi-chevron' (unilateral subcostal) incision with prolen marker and blunt dissection procedure as in this case may be suitable for removing the tumor and for caval approach. Limited incision helps better pain and infection control and preserves the respiratory functions.

PP-446 EFFECT OF COMBINED ORAL CONTRACEPTIVE USE ON PLATELET VOLUME IN WOMEN AT REPRODUCTIVE AGE

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OBJECTIVE: Combined oral contraceptives using is associated with an increased risk of developing venous and arterial thromboembolic events. Platelet size, measured as mean platelet volume (MPV), is associated with platelet reactivity.

METHODS: Ninety-five women used oral contraceptives for contraception were investigated retrospectively. The patients' blood pressure, pulse and hematological values at application and at sixth month were evaluated retrospectively.

RESULTS: There was no difference between the values of blood pressure (systolic and diastolic), pulse, hematological values (which contain leukocyte, platelet and mean platelet volume) at application and at sixth month.

CONCLUSIONS: We determined that using oral contraceptives for contraception did not change MPV values in young women.

The values before and after COC using.

	Before	Follow up time	P value
Systolic BP (mmHg)	113±13	113±12	NS
Diastolic BP (mmHg)	74±8	74±7	NS
Fasting plasma glucose (mg/dl)	91±13	93±9	NS
Creatinine (mg/dl)	0,68±0,1	0,65±0,1	NS
Total cholesterol (mg/dl)	166±32	150±38	NS
AST (IU/L)	21±10	18±11	NS
Hemoglobin (g/dl)	125, ±1,3	12,5±1,2	NS
Platelet counts (109)	264±65	268±71	NS
White Blood Cell (n/mL)	7,7±2,7	7,4±2,6	NS
Mean platelet volume (fL)	8,7±1,6	8,8±1,9	NS

CARDIOVASCULAR NURSING – POSTER PRESENTATION

PP-447 EVIDENCE-BASED NURSING PRACTICES IN CARDIOVASCULAR SURGERY

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OBJECTIVE: Evidence-Based Nursing is defined as decision-making process using nurses' clinical expertise, patient preferences, and the best available evidence. Be evidence-based nursing practice is important for improve the quality of care and care outcomes, make a difference in the clinical practice and patient care results, standardize care and improve the nurse satisfaction. Recent studies, results of research not used to desirable levels by nurses and shows that nurses did not have enough information about the evidence-based practice. Research has generally remain on a theoretical level, and although it is considered by the nurses thought that the research results can not be applied. Information to be different levels of research and publication of research results into practice in different languages to prevent loss of the largest reason. In addition a nursing research center that to articles published evaluated in terms of levels of evidence has not yet been. The purpose of this research, emphasize the importance of evidence-based nursing and nursing in the field of cardiovascular surgery will form the basis of evidence-based practice is to provide examples of current research results.

PP-448 THE EFFECTS OF POSITIVE AIRWAY PRESSURE VENTILATION ON PULMONARY FUNCTION AFTER CARDIAC SURGERY

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OBJECTIVE: Intrapulmonary shunt as a result of atelectasis following cardiac surgeries is an important and common postoperative complication that can lead to pulmonary dysfunction and gas exchange impairment that usually last more than a week after surgery. Different methods have been provided to prevent these complications but controversies over the benefits of these methods are still remaining. In this study the effectiveness of methods of positive airway pressure continuous positive airway pressure (CPAP) and intermittent mandatory ventilation (IMV) during cardiopulmonary bypass(CPB) in patients undergoing coronary artery bypass grafting(CABG) in the prevention of postoperative pulmonary complications has been studied.
METHODS: In this prospective interventional study, 300 patients, candidate for elective CABG (On-Pump), were randomly allocated to 3 groups: A, B, C. Group A (CPAP) patients received CPAP at 10 cm H2O during CPB. Group B (IMV) patients received IMV with a tidal volume of 2 cc/kg and respiratory rate of 15/min. And group C (control) patients did not receive any type of ventilation during CPB. Other therapies were similar between groups. Arterial blood gases were taken at 8 moments and the PaO2, PCO2, PaO2/FiO2 and (A-a) DO2 compared between groups. Chest x-rays after CABG were also evaluated with respect to atelectasis. Data analysis was done using SPSS.
RESULTS: The demographic data were similar in the 3 groups. Graft number, pump time and preoperative ABGs were not significantly different. Postoperative PaO2 were significantly higher in the CPAP and IMV groups and (A-a) DO2 were significantly lower in these 2 groups, compare to the control group.
CONCLUSIONS: In the present study, applying positive airway pressure methods (CPAP or IMV) during CPB was associated with better postoperative ABG measurements and (A-a) DO2.

PP-449 CARDIOVASCULAR SURGERY AND THE MENTAL STATUS EXAMINATION

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OBJECTIVE: The aim of this study is to state the importance of nurses' mental status examinations in cardiovascular surgery patients.
METHODS: The mental status examination is used to determine whether or not there are abnormalities in the patient's thinking and reasoning ability, feelings, or behaviors. It is fundamental in cardiology and cardiovascular surgery of medicine. Nurses often perform quick mental status examinations. They see their patients without realizing they are doing it.
RESULTS: Changes in a patient's appearance, memory, emotions, or thinking can be observed while the nurse is making quick rounds or having a social conversation with the patient.The mental status examination includes observations and questions in the following categories: appearance, behavior, and speech; thoughts; mood and affect; ability to perform abstract reasoning; memory; intelligence; concentration; orientation; judgment; and insight. To gather a comprehensive evaluation, review all the categories of the examination. Congruence or discrepancies between sections may reveal important information.
CONCLUSIONS: Changes in mental status are often caused by alterations in the psychological or physical condition. For example, behavioral changes such as confusion, depression, delirium, or even psychosis may be signs of drug toxicity or electrolyte imbalance. Providing nursing care with quality requires experience in performing mental status examinations as well.