

ICR 2008: Fourth Workshop on Integrated Cardiovascular Repair

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This special section of the Heart Surgery Forum contains highlights from the 4th ICR Workshop, organized by the Departments of Cardiac Surgery and Cardiology at Innsbruck Medical University and held December 4-6, 2008, at the New Innsbruck City Hall in Innsbruck, Austria. As in the last three workshops, the aim of the meeting was to gather interventional cardiologists, heart surgeons, and other cardiovascular specialists in order to discuss and develop new ways of cooperation and integration.

Attendees from 24 countries were present and contributed to the success of the workshop. The number of participants has increased compared to previous ICRs. This may be in part because in addition to hybrid coronary intervention discussion topics also included integrated procedures for valve disease, congenital heart disease, thoracic aortic disease, and cardiac rhythm disorders.

After an outline of the history and rationale of integrated procedures in cardiovascular medicine by the Course Directors, Valavanur Subramanian of New York, a pioneer in hybrid coronary revascularization, gave an impressive overview on the development of minimally invasive direct coronary artery bypass (MIDCAB) and its application for the hybrid concept. Robert Poston of Boston, Mark Katz of Richmond, and David Zimrin of Baltimore reported on their experience with hybrid interventions for coronary artery disease. Integrated work for treatment of coronary artery disease was presented by Gianluigi Bisleri, who gave an update on endoscopic graft harvesting techniques, and by Jean-Luc Jansen of Brussels and Johannes Bonatti of Baltimore, who outlined current developments in robotic, endoscopic coronary artery bypass grafting (CABG). Aubrey Almeida of Melbourne and Sotirios Prapas of Athens discussed on- and off-pump techniques for surgical coronary revascularization. On the interventional cardiology side, Peter Fitzgerald of Stanford presented the current role of IVUS in PCI; Stephanie Wilson of Sydney

and Mathias Heigert of Salzburg compared percutaneous coronary intervention (PCI) and CABG for treatment of coronary artery disease. David Zimrin of Baltimore suggested new anticoagulant and anti-platelet therapies for PCI. Guy Friedrich gave answers to the question of whether there were changes in indications for PCI in 2009.

A very interesting staged and simultaneous concept for videoscopic epicardial and catheter based endocardial ablation for atrial fibrillation was presented by Marc LaMeir of Maastricht. Joerg Stein of Innsbruck reported on current developments in hybrid interventions for congenital heart disease.

In a symposium on "Intelligent Cardiopulmonary Bypass Concepts," Stephen Wildhirt of Munich reported on new tailored ways of heart lung machine application, and Hans Knotzer of Innsbruck gave his experience with cardiopulmonary bypass outside of the operating room.

Talks on both integrated mitral valve repair and integrated aortic valve repair were given: Mark Katz, Aubrey Almeida, and Ludwig Mueller discussed surgical minimally invasive mitral valve repair, and Stefan Sack of Munich discussed catheter based interventions on the mitral valve. Thomas Bartel, Ludwig Mueller, and Guenther Laufer, all of Innsbruck, gave their perspectives on surgical, minimally invasive, and catheter-based endovascular treatment of aortic valve disease.

The Saturday morning sessions were concentrated on implementation, planning, and organization of hybrid operating rooms and cardiovascular intervention centers. As in the previous workshops, these sessions were very well-attended. Georg Nollert of Erlangen, Zeljko Sutlic of Zagreb, and Johannes Bonatti presented their experiences with building and running a cathlab-OR. Bartley Griffith of Baltimore gave his perspective on how a heart center could be run most efficiently and effectively. Lastly, Oeztekin Oto of Izmir drew the participants' attention to cardiac surgery-cardiology cooperation on the scientific society level.

In a very interesting special hybrid guest lecture, Peter Mayer of Vienna outlined the value of hybrid cars as an example for functioning hybrid technology.

Three live cases were shown at the ICR Workshop. Mitral valve repair through minithoracotomy using standard videoscopic technique was demonstrated by Ludwig Mueller of Innsbruck, and the same operation was shown in its robotic version by Aubrey Almeida of Melbourne. Johannes Bonatti and Guy Friedrich performed a simultaneous hybrid coronary intervention with robotic arrested heart totally endoscopic coronary artery bypass grafting (TECAB) left internal

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mammary artery (LIMA) to left anterior descending artery (LAD) and a PCI on the right coronary artery. All patients recovered well after their operations.

In a moderated poster walk and in an oral abstract session, interesting studies on integrated approaches in various fields in cardiovascular medicine were presented.

The vision of the ICR team is that in the future invasive therapies on the heart will be carried out by teams of interventional cardiologists, cardiac surgeons, and other cardiovascular specialists who cooperate in specially designed units in order to provide optimal treatment for patients with heart

disease. The 2008 Workshop demonstrated that this vision is already becoming reality as multiple teams worldwide directly cooperate in hybrid operating rooms.

We thank all faculty members and participants for their valuable contributions; we thank Conventive for the perfect meeting organization; and we thank the colleagues of Innsbruck Medical University, Departments of Cardiology and Cardiac Surgery, for their support with preparation and conduct of the meeting. We hope to see participants again at the fifth ICR Workshop. For further information visit www.icrworkshop.at.