

## Lupus Panniculitis With Linear Hair Loss on the Scalp

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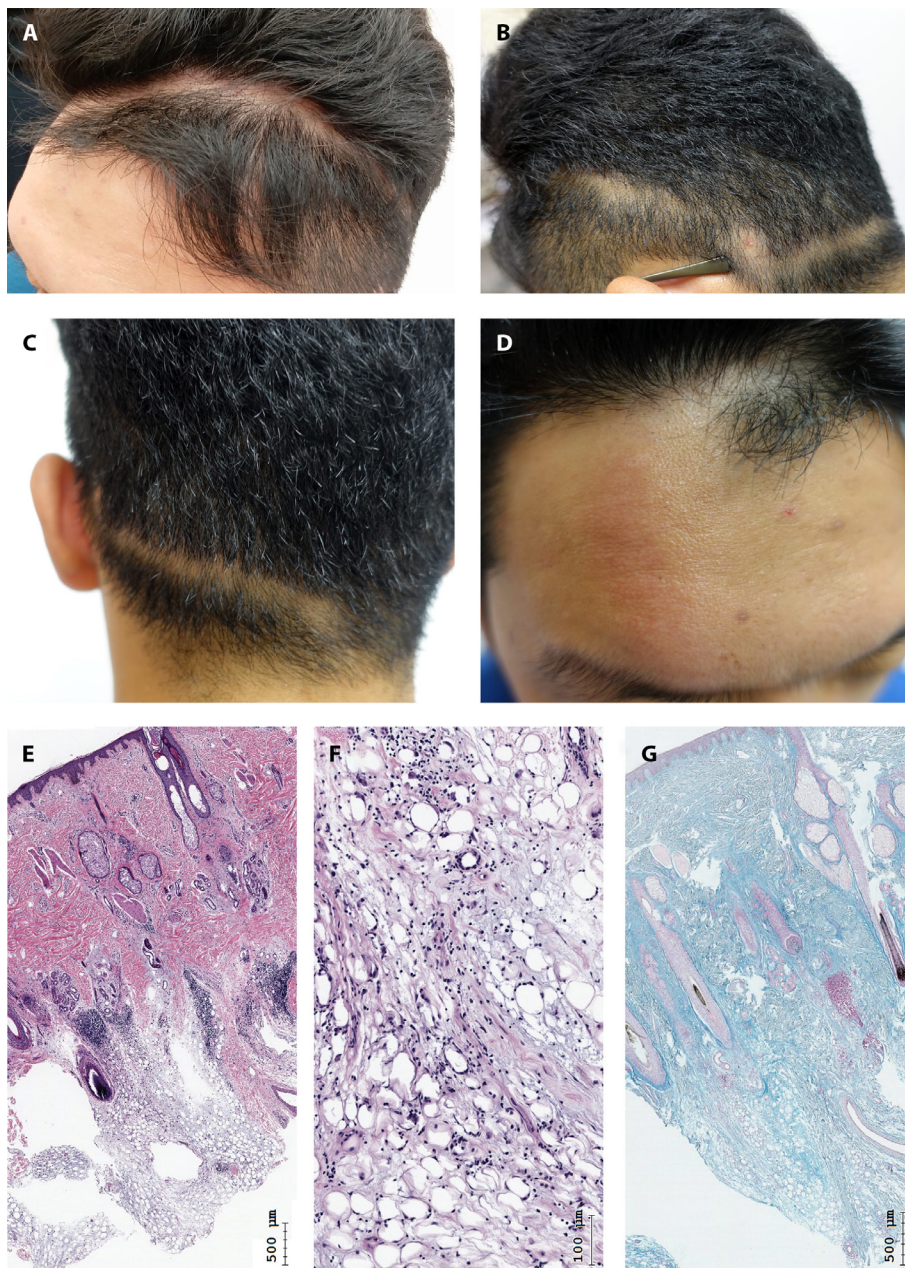
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### Case Presentation

A 30-year-old Asian healthy man presented with 1.5 years of asymptomatic progressive linear hair loss, which was 20 cm in length and 1.5 cm in width along the right frontal, left parietal, and left occipital scalp (Figure 1, A-D). Histopathology from an incisional biopsy on the left parietal scalp revealed heavy lympho-histiocytic infiltrates over superficial and deep perivascular, peri-eccrine, and perifollicular areas, and lobular subcutaneous fat necrosis (Figure 1, E-F). Alcian blue stain revealed increased mucin deposition extending from the dermis to the subcutaneous tissue (Figure 1G). The infiltrative cells in the dermis consisted mainly of CD4<sup>+</sup>T lymphocytes and CD123, the plasmacytoid dendritic cell marker, was also positive. Although no direct immunofluorescence was done, the serum antinuclear antibody was negative. These findings were consistent with lupus panniculitis.

### Teaching Point

Linear lupus erythematosus panniculitis of the scalp is a rare manifestation of cutaneous lupus erythematosus [1,2]. The mean age of onset is between 20 and 30 years of age, and no specific sex predominance has been noted. Most reported patients are of Asian ethnicity. The disease can affect all regions of the scalp, but the parietal scalp is the most commonly affected site [1]. The proposed mechanism for the linear distribution of hair loss is attributed to genetically programmed clones of cells along Blaschko's lines from early embryogenesis [2]. A hydroxychloroquine-containing regimen is the main treatment applied in previously reported cases, and improvement could be achieved in approximately 60% of cases in a mean duration of 8 weeks [1,2].



**Figure 1.** Linear nonscarring alopecia along the right frontal scalp, left parietal scalp (A), and left occipital scalp (B,C). (D) One erythematous indurated plaque extending from the frontal hairline on right forehead. A skin incisional biopsy showed perifollicular and perieccrine lympho-histiocytic inflammation in the dermis (E; H&E, 50X) with subcutaneous fat necrosis (F; H&E, 250X). Increased mucin deposition in the dermis and subcutaneous fat (G; Alcian blue staining, 50X). Scale bar: 100 or 500  $\mu\text{m}$  as indicated in the figures.

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