Annular lupus panniculitis on the scalp

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To the Editor: A 1-year-old boy presented to our department with progressive linear scalp hair loss that had been present for 1 month. Physical examination revealed an annular alopecic patch of approximately 1.5 cm in width located on right parietal and occipital areas of the scalp [Figure 1A]. The lesion was smooth with no erythema or scales. The patient experienced no other discomfort. His medical history and family history were unremarkable. Laboratory investigations including a complete blood count, urinalysis, liver and renal function, immunoglobulin (Ig), erythrocyte sedimentation rate, anti-double-stranded DNA, anti-Sm, anti-Ro/SSA, and anti-La/SSB antibody determinations were all normal or negative. The C3 component was 0.61 g/L (0.79–1.52 g/L) and the antinuclear antibody was positive (1:80). Histopathologic examination of the balding area showed infiltrations of lymphocytes and plasma cells in the deep dermis and around appendages [Figure 1B]. Mucinous deposition and lymphocyte infiltrations were also observed in subcutaneous tissue. Alcian blue stain was positive. Direct immunofluorescent examination revealed no deposition of IgG, IgA, IgM, and C3 in the basement membrane zone. According to the clinical manifestation and histologic features, the diagnosis of annular lupus panniculitis was made.

Lupus panniculitis, also known as lupus erythematosus profundus, is a special form of chronic cutaneous lupus erythematosus. Lupus panniculitis is characterized by the presence of erythema with deep subcutaneous nodules or plaques and is commonly observed on the face, trunk, or extremities. Annular (linear) lupus panniculitis of scalp is a rare type of chronic cutaneous lupus erythematosus, with young individuals from East Asian or Caucasians being more likely to be affected.[1] Typical clinical features of scalp annular lupus panniculitis include non-scaring alopecia with no or mild erythema.[2] Annular lupus panniculitis mainly materializes as single or multiple sites throughout the scalp in these young patients. The lesions always distribute along Blaschko's lines and show linear, annular, or arc-shaped configurations.[3-5] Lupus panniculitis results in a relatively sparse inflammatory infiltration, more abundant mucin in the fat lobules and a higher degree of hyaline fat degeneration. Direct immunefluorescent examinations for IgG, IgA, and IgM in most cases of linear/annular lupus panniculitis reveal negative results.[4,5] While approximately half of these patients have positive anti-nuclear antibodies, few meet the criteria for systemic lupus erythema.[1] Linear lupus panniculitis has a reversible clinical course, with most published cases reporting significant improvement or complete hair re-growth after treatment with oral corticosteroids. Differential diagnoses of linear/annular lupus panniculitis include trichotillomania, tinea capitis, alopecia areata, linear morphea, and linear discoid lupus erythematous. In cases of annular lupus panniculitis as reported in the literature, most achieved favorable responses following treatment with dapsone, hydroxychloroquine, or corticosteroids.[1] The patient described in this report received a daily regimen of 8 mg oral methylprednisolone. Hair re-growth was observed after 1-month of treatment and no scars or recurrence were present as assessed at 3 months of follow-up [Figure 1C].

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient's guardians have given their consent for their images and other clinical information to be reported in the article. The patient's guardians understand that their names and initials will not be published and due efforts will be made to conceal the identity of the patient, although anonymity cannot be guaranteed.

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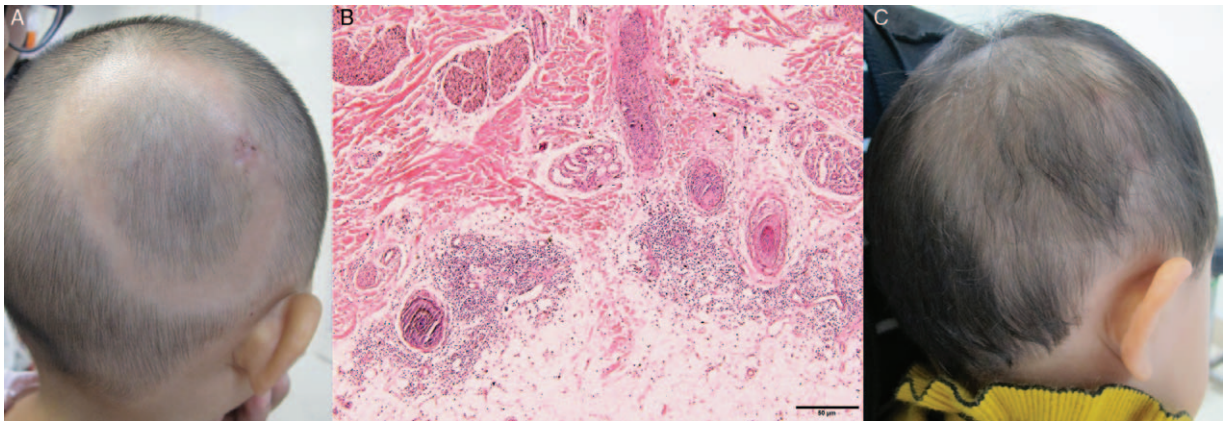

Figure 1: (A) Annular hair loss on scalp without skin atrophy or crusts. (B) Histopathologic changes of the patient (hematoxylin-eosin staining, original magnification ×10). (C) Hair re-growth was observed at 3 months of follow-up.

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Conflicts of interest

None.

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