Case 9

A 23-year-old Thai male from Bangkok

Chief complaint: Progressively localized hair loss for 5 years

Present illness:

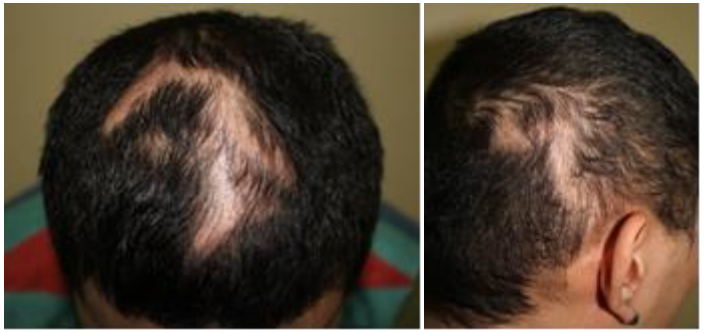
5 years previously, the patient gradually developed asymptomatic localized alopecia on parietal and crown area of the scalp. He did not mention any signs of inflammation on the area of hair loss. There were no systemic symptoms.

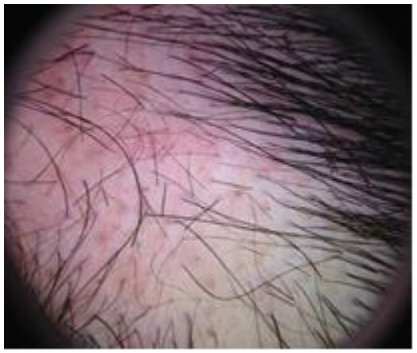
Past history: He had tumid lupus erythematosus and Graves'disease for 6 months.

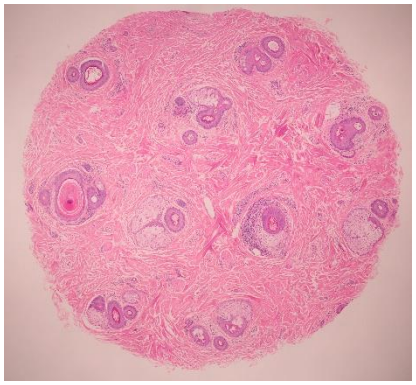
Physical examination:

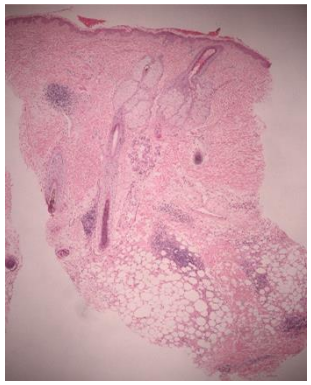
HEENT: Diffuse enlarged thyroid gland (estimated weight 40 gm), no carotid bruit, no lid lag, no lid retraction, no exophthalmos
Extremities: No pitting edema. Fine tremor was observed.

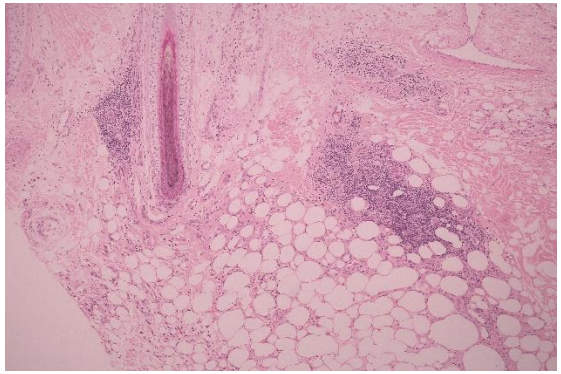
Skin: Localized non-scarring alopecic patches on parietal and crown area of the scalp, no exclamation mark hair, Hair pull test: negative Dermoscopic examination revealed yellow dots, red dots, broken hair and erythema on the interfollicular area.











Histopathology: (S15-003058, scalp)

- Nodular inflammatory cell infiltrate in dermis, subcutaneous fat lobules and around the hair follicles
- Hyalinized necrosis of fat cells in subcutaneous tissue
- **Microscopic diagnosis**: Lupus panniculitis

Diagnosis: Alopecia associated lupus panniculitis

Investigation:

CBC: WBC 4,990/cumm (N 37%, L 48%, Mo 12%, Ba 1%, Eo 2%), Hct 43%, Plt 123,000 /cumm
BUN/Cr: 11/0.9 mg/dl
LFT: TB 1 IU/L, DB 0.6 IU/L, AST 26 IU/L, ALT 20 IU/L, ALP 147 IU/L, Alb 48 mg/L
ANA: 1:160 (speckled pattern)
Anti dsDNA: Negative, Anti Sm: Negative
TSH: <0.008 uU/ml, FT3 6.7 pg/dl
Anti TPO: 170 (negative < 50)
UA: Sp.gr. 1.015, pH 5.5, Protein Negative, WBC 0, RBC 0

Treatment:

Prednisolone 0.5 mg/kg/day
Hydroxychloroquine 200 mg once daily
5% Minoxidil apply twice daily

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Discussion:

Lupus erythematosus (LE) panniculitis is an inflammatory disorder of the subcutaneous fat in patients with lupus erythematosus. It is a rare variant of the disease, which occurs approximately in 1%–3% of patients.[1] The clinical manifestation of LE panniculitis includes recurrent subcutaneous nodules or plaques that may be observed in patients with discoid lupus erythematosus (DLE) or systemic lupus erythematosus (SLE), or as an isolated phenomenon without systemic or other cutaneous findings. The lesion commonly locates on the upper limbs and face, followed by trunk, scalp, buttock, and thighs. Twenty five to 50% of the patients will complete the criteria for SLE.

LE panniculitis on the scalp is extremely rare and sometime associates with hair loss. Alopecia usually occurs on the affected scalp area. The severity of hair loss varies from non-scarring to scarring alopecia depending on the severity of the disease. The common clinical manifestation is localized alopecic patch(es) with linear, annular or arc-shaped

configuration. Some of reported case manifested alopecic patch along Blaschko's lines on the scalp.[2,3] The condition affects both sexes and occurs mainly in young patients. The overlying skin may show a variety of clinical pictures from normal scalp, erythematous patch or plaque to a clinical picture of DLE.

The diagnosis of LE panniculitis is based on the correlation of clinical, serological, and histopathological findings.[4,5] The histopathology of LE panniculitis includes a predominantly lobular lymphocytic panniculitis with hyalinized fat necrosis. In case of alopecia, an increase of telogen and miniaturized hair follicles, perifollicular lymphocytic infiltration without basal vacuolization, perifollicular fibroplasia and fibrotic tract could be observed. Direct immunofluorescence is positive in 70% to 80% of cases and can confirm the diagnosis of LE panniculitis. Antinuclear antibodies (ANA) are positive in 70% of cases.[6-8]

The treatment of LE panniculitis prefers using combination therapy of corticosteroids and antimalarial drugs. Systemic corticosteroids can be gradually tapered when the lesions subside and antimalarial drug, usually hydroxychloroquine, is continued for 6–12 months to maintain the clinical response. There are sporadic reports that oral administration of dapsone or thalidomide was effective in LE panniculitis.[9]

In summary, we present a case of young male who presented with localized non-scarring alopecic patches on the scalp. The clinical and histopathological findings suggested the diagnosis of alopecia associated lupus panniculitis. He was treated by oral prednisolone 0.5 mg/kg/day in combination with hydroxychloroquine 200 mg/day for 3 months. The hair regrowth and improving of scalp inflammation were observed.

References:

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