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Patient: A 24-year-old Thai woman from Bangkok

Chief complaint: Rash on the scalp and postauricular areas for 6 months

Present illness:
The patient presented with itchy scaly erythematous rash at postauricular areas and hair loss for 6 months.

Past history:
She had been experiencing hair loss for the past 6 years, for which she uses tar shampoo and 0.25% Desoximetasone cream. The condition has slightly improved without any new lesions.

Family history: No other family members experience the similar condition to the patient’s.

Dermatological examination: Multiple discrete well-defined scaly crusted atrophic erythematous patches with hyperpigmented border on both parietal areas, ear pinnae and scalp.

Investigation:
CBC: Hb 12.6 g/dL, Hct 37.9%, MCV 78fl, MCH 26 pg, MCHC 33.2 g/dL, WBC 5,600/μL, N 65%, L 28%, E 1%, B 1%, M 5%, PLT 248,000/μL
FANA: Positive 1:640 Homogenous pattern
DIF: Positive IgG dermal-epidermal junction, granular pattern

Histopathology: Slide No.59-1049 (scalp)
Sections display non-atrophic epidermis with vacuolar degeneration of the basal cell layer. Hyperkeratosis and thickening of basement membrane are observed. Neither spongiosis nor necrotic keratinocyte is present. The dermis shows a superficial and deep perivascular lymphoplasmacytic infiltration with fibrosis. Periadnexal infiltration is found.

Dermal patchy infiltration of xanthomatous cells is also identified in the upper dermis. The overall features are those of discoid lupus erythematosus with superimposed xanthomatous infiltration.

Diagnosis: Discoid lupus erythematosus with superimposed xanthomatous infiltration

Treatment:
She had been treated with hydroxychloroquine (200mg) one tablet once daily. She had also been given 0.05% betamethasone valerate and 0.25% desoximetasone cream to be applied on the face and scalp lesions, respectively. Furthermore, she was advised to exercise sun avoidance and regular use of sunscreens.

Discussion:
In this case, the patient’s clinical presentation, histopathology and laboratory findings are compatible with discoid lupus erythematosus (DLE). However, xanthomatous lesions were not present, yet interestingly, infiltrations with xanthoma cells is found in the dermis.

There seems to be only one case report by Earl W. Netherton (1945), regarding DLE with superimposed xanthomatous infiltration. The patient’s cholesterol level proved to be within normal limits. The histology revealed the picture of DLE, with the dermis replaced by cellular infiltrations and foam cells. Netherton reported that the pathogenesis was due to the lipid infiltration of tissue cells by cholesterol and cholesterol ester. The lipid infiltration was less diffuse than that of primary xanthoma. Due to this fact, xanthomatous changes which were present were not of a primary nature. Another hypothesis to elucidate why the deposition of the lipid substance occurs is the long standing hyperemia and relative stasis, typically found in DLE.

There have been some reports of discoid lupus erythematosus (DLE) coexisting with verruciform xanthoma, cutaneous trauma, inflammatory disease and intercurrent scar. The findings in this case may represent a new variant of DLE with xanthomatous infiltration which has never been reported elsewhere.
The patient has satisfactory improved after the administration of 200 mg per day of hydroxychloroquine, 0.05% betamethasone valerate and 0.25% desoximetasone cream. Regular check up and follow up are advised.

References: