Case No.8

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Patient: A 28-year-old Thai female, from Chaiyaphum

Chief complaint: Multiple reddish annular plaques on neck both hands and right axilla with itching and pain for 1 week

Present illness:
She presented with annular itchy and painful plaques on nape of neck both hands and right axilla for 1 week. No other systemic symptoms such as fever, malaise, arthralgia, oral ulcer or photosensitivity.

Past history: Asthma and allergic rhinitis (well controlled)

Family history: No family member experience the same condition as the patient

Physical examination:
GA: A Thai healthy female, good consciousness
HEENT: not pale conjunctiva, no oral ulcer
Heart and Lung: normal
Abdomen: soft, no hepatosplenomegaly

Dermatological examination:
Multiple well-defined non-scaly erythematous annular plaques with central hyperpigmentation over nape of neck, anterior chest, dorsa of both hands, right calf and right axilla

Investigation:
CBC: Hb 14.6 g/dL, WBC 8,000 /µL (N 61% E14% L20% M5%), Platelet 366,000 /µL
FANA: negative
HBs Ag: negative, HBs Ab: negative, HCV Ab: negative
Slit skin smear both ears and right calf: all negative

Histopathology: Slide no. 59-2952A (Right leg)
Sections display unremarkable epidermis. The dermis shows dense infiltration of eosinophils with frequent flame figures. There are some lymphocytes. No vasculitis is seen.

Diagnosis: Eosinophilic annular erythema (EAE)

Treatment:
She was treated with Indomethacin 75 mg/day, Colchicine 1.2 mg/day, Cetirizine 10 mg/day and Loratadine 10 mg/day for 10 weeks.
Discussion:

Eosinophilic annular erythema (EAE) is a rare eosinophil-rich dermatosis that was first described in children. The first report of an adult case was in 2000 by Kahorfer P. EAE commonly runs a chronic relapsing course which likely resists to numerous treatments. The etiology of EAE is currently unclear. Still, some studies revealed associations of EAE with autoimmune thyroid disease, chronic borreliosis and renal carcinoma. There are limited numbers of case reports of this condition in the literature. It is still debatable whether EAE is a subset of Well’s syndrome (WS) or a distinct entity.

Clinically, EAE is characterized by recurrent nonscaly urticated erythematous papules and plaques which often develop into an arcuate or annular configuration as they expand. EAE is predominantly localized to the trunk and proximal extremities. Comparatively, EAE is more prominent with gyrate erythema than WS, and findings such as prodromal burning, painful edema, peripheral induration and resolution without morphea-like lesions are absent unlike WS.

Histologically, EAE shows dense perivascular and interstitial infiltrate with abundant eosinophils which usually seen throughout the dermis. The absence of flame figures, a characteristic finding in WS, is thought to be the distinctive histopathological feature of EAE. However, some reports have found that flame figures may be absent only in the initial lesions, while they may be present, together with granulomatous infiltration, in later lesions of EAE. So, the presence of flame figures by histology may depend on the timing of biopsy.

Currently, there is no standard treatment for EAE. Nevertheless, patients were reported to respond well to antimalarial, systemic steroids, dapsone, indomethacin or UVB therapy. Spontaneous resolution is also possible after weeks to years.

Antimalarial was suggested as the treatment of choice by many authors. It acts through multiple immunomodulatory, anti-inflammatory and anti-proliferative mechanisms. The inhibition of eosinophil chemotaxis and proinflammatory cytokine release might be the possible therapeutic mechanism of antimalarial in EAE. Prompt clearing is usually observed within the first 4 weeks of hydroxychloroquine treatment. However, relapse after the withdrawal of antimalarials is frequent. Nevertheless, antimalarials still can be used for the relapse.

In summary, our case is a 28-year-old female who presented with annular itchy and painful erythematous plaques. Based on her clinical and histological findings of dense infiltration of eosinophils and flame figures, the diagnosis of EAE was made. She was treated with Indomethacin 75 mg/day, Colchicine 1.2 mg/day, Cetirizine 10 mg/day and Loratadine 10 mg/day for 10 weeks. As a result, all lesions were completely cleared. The patient is now in complete remission after cessation of the therapy in January 2017. This case shows us the rare diagnosis of EAE in a patient presented with figurate erythema.
Reference:


