Case 7

Pruritic rashes on both feet

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Patient: A 33-year-old Thai man from Bangkok

Chief complaint: Pruritic rashes on both feet for 2 years

Present illness:

The patient presented with persistent, pruritic rashes on both feet for 2 years. The areas involved were slightly tender. He was diagnosed initially as chronic feet eczema and he had previously been treated unsuccessfully with super-potent topical corticosteroids. Skin patch testing with shoe allergens was negative.

Past history:

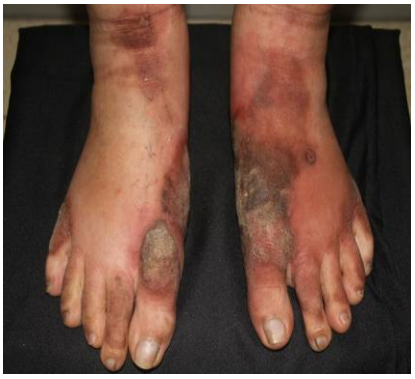
He had a history of jaundice due to hepatitis C virus (HCV) infection 10 years ago, but he did not continue the treatment.

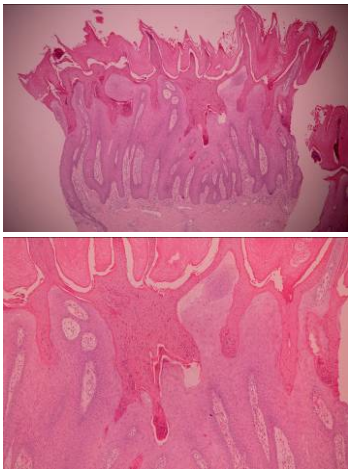
Skin examination:

- Well-defined, lichenified, hyperkeratotic, brown plaques with erythematous rim bilaterally and symmetrically on the dorsa of his feet, toes, posterior aspect of ankle, thigh, and buttock

Histopathology: (S13-25875, right foot)

- Thick compact hyperkeratosis with scale-crust
- Hypogranulosis, some with ballooning and necrotic keratinocytes and papillated epidermal hyperplasia
- Superficial inflammatory–cell infiltration in the dermis





Diagnosis: **Necrolytic acral erythema**

Investigation:

Laboratory tests

Anti HCV: Positive
HCV RNA: 923,752 IU/ml
HCV genotype 3a
Zinc level: 50 ug/dL (70-120 ug/dL)
LFT: AST 101 U/L, ALT 194 U/L, AP 112 U/L, GGT 98 U/L, TP 75.1 g/L, Alb 33.4 g/L, TB 1.2 mg/dL, DB 0.5 mg/dL

Imaging study

Ultrasound upper abdomen:

- Liver cirrhosis, no focal mass
- Prominent spleen

Treatment:

- Zinc sulfate solution (10mg/ml) 2.5 ml twice daily
- We plan to treat with interferon alpha2b plus ribavarin, but the patient loss to follow up.

Discussion:

Necrolytic acral erythema (NAE) is a rare, cutaneous manifestation of hepatitis C virus infection. It was first described by El Darouti and El Ela in 1996, in seven Egyptian patients with hepatitis C virus (HCV) infection.[1] With less than 100 cases reported in English literature, mostly from Egypt and only few patients reported from Asia including Parkistan[2] and Taiwan[3]. The mean age of patients is 40 years (range 11–76 years), and 60% were female. Almost all cases have coexisting hepatitis C infection.[4]

The clinical features depend on the stage of the disease, early lesions are characterized by scaly, dusky papules, blisters, and/or erosions with an erythematous rim. Then lesions often develop into sharply defined large erythematous to violaceous, hyperkeratotic, lichenified plaques. The old lesions are thinner and increasing hyperpigmentation. The symptoms include pruritus (93% of cases), burning (16% of cases), and/or pain (14% of cases).[5] Lesions are always located on acral area, with a specific predilection for dorsa of the feet and toes that may occasionally extend proximally on the limbs, trunk or to the genitalia. The head, neck, palms, and soles and mucous membranes are usually spared[6]

The pathogenesis of NAE is poorly understood. The HCV may play an important role. Because almost all cases have occurred in HCV infection patient, and some reported show correlation between degree of hepatic involvement, HCV viremia and the severity of cutaneous lesions of NAE.[6-7] The supporting data included the successful treatment in NAE with ribavirin and/or interferon-alpha.[8-9] The another explanation is zinc deficiency. Although, serum zinc was normal in most patients, but improvement or clearance of NAE may be achieved with zinc sulfate supplementation.[5, 9-10]

Histopathology shows psoriasiform epidermal hyperplasia with marked papillomatosis. Associated findings include epidermal pallor, parakeratosis, focal hypergranulosis, scattered or grouped dyskeratotic keratinocytes in the upper epidermis, and an upper dermal perivascular and interstitial mononuclear infiltrate.[6, 11] But there are variable and depend on the clinical stage and chronicity of the lesions.

No standard treatment exists for NAE. It is difficult and resistant to most

topical and systemic agents. Topical corticosteroids are not effective. Complete resolution has been achieved with interferon-alpha2b,[8] oral zinc[5, 10] or a combination of these two agents.[9] Recent case report shows successful treatment with topical tacrolimus.[2]

References:

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