Necrolytic Acral Erythema: a diagnostic hint to HCV
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HISTORY
A 50-year-old diabetic Hispanic female with a history of untreated hepatitis C virus infection (HCV) and cirrhosis presented with a burning, minimally pruritic eruption on her lower legs for 2 years (Figures 1-3). She was treated unsuccessfully for psoriasis with calcipotriol and triamcinolone 0.1% ointment. She had then self-treated the areas with several unidentified creams, Vaseline, triple antibiotic ointment, Epsom soaks, rubbing alcohol, hydrogen peroxide, and scrubbing with a loofah.

PHYSICAL EXAM

Figures 1-3: On the bilateral lower legs are dusky, erythematous scaly plaques with small superficial erosions and a surrounding halo of hypopigmentation. The plaques extend from above the lateral malleolus to the dorsal feet.

HISTOPATHOLOGY

Histopathology showed a spongiform psoriasiform dermis with an infiltrate of lymphocytes and histiocytes in the dermis. There was overlying hyperkeratosis with focal parakeratosis without neutrophils. There was also slight paller of the superficial epidermis and a decreased granular cell layer with focal dyskeratosis.

LABORATORY DATA

Histopathology consistent with necrolytic acral erythema (figures 4-7). Serum laboratory results were within normal, with exception of following abnormals (normal reference range):
- Albumin 2.6 g/dL (3.6-5.1)
- ALP 143 U/L (33-130)
- ALT 44 U/L (6-29)
- AST 56 U/L (10-35)
- Platelets 41,000/µL (150,000–400,000)
- HCV antibodies – reactive
- Serum zinc:
  • Measurement A: 34 mcg/dL (60-130)
  • Measurement B: 39 mcg/dL (60-130)

CLINICAL COURSE

Zinc sulfate supplementation was initiated at 220 mg orally twice per day and increased incrementally until a dosage of 440 mg orally three times per day (1320 mg daily) was reached.

At follow up, 1 month after initiation of zinc supplementation, the patient exhibited clinically notable improvement of rash. She reported decreased pruritus in lesional areas.

DISCUSSION

Necrolytic acral erythema (NAE) is a rare condition first described in 1996. Clinically, the disease can resemble psoriasis, acrodermatitis enteropathica, and necrolytic migratory erythema. Its failure to respond to topical corticosteroids and acral distribution—commonly the dorsal feet—may be helpful in making this clinical distinction.

The pathogenesis of NAE is poorly understood, but the vast majority of NAE cases occur in patients with active hepatitis C.

REFERENCES