

Psoriasiform spongiotic dermatitis

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DESCRIPTION

A 55-year-old homeless man with AIDS and history of psoriasis presented with generalised skin lesions. He reported pink rashes appearing on the legs 8 months ago. It spread with severe itching and scaling, and exacerbated into erythematous papular infiltrated skin lesions over the arms, legs and torso that coalesced into plaques and hardened. He had difficulty ambulating but denied joint pain or stiffness.

Physical examination revealed large, thick dark-brown hyperkeratotic plaques with a tree bark-like appearance on the legs (figure 1A–E); thick concentric verruciform plaques on the forearms (figure 1F, G); hyperpigmented patches, spotted with pink papules, topped by circumferential lichenification and converging into larger silver crusted plaques on the torso, neck and head (figure 1H) and lesion-free genitalia. Lesions were adherent and odourless without expressing discharge or fluid. Pink rashes were present on the upper arms, hands and feet (figure 1I–K), accompanied by hyperkeratotic soles and palms (figure 1K, L). Nails of hands showed nail bed hyperkeratosis, onycholysis and ‘oil drop’ dyschromia, an orange–yellow discolouration beneath the nail plate (figure 1J). Nails of feet exhibited onychogryphosis, defined by subungual keratosis, opaque yellow–brown discolouration of the nail plate and twisted, hyperkeratotic nails resembling ‘rams’ horns’ (figure 1K).

The patient was afebrile with a CD4 count of 9 cells/ μ L (normal 500–1500 cells/ μ L) and viral count of 59 700 copies/mL. All other laboratory studies were unimpressive. Wound culture grew *Staphylococcus aureus*, while acid-fast bacilli, fungal and blood cultures were negative. Following dermatology consultation, a skin punch-hole biopsy

of the right dorsal wrist was performed. No other bedside tests were conducted.

In consideration to his living situation and immune status, our differential diagnoses included Norwegian scabies, an ectoparasitic infection by *Sarcoptes scabiei* forming warty, hyperkeratotic lesions; and cutaneous blastomycosis, a deep fungal infection by *Blastomyces dermatitidis* presenting as crusted nodules and plaques with indurated borders. Alternatively, we contemplated rupioid psoriasis, characterised by thick cone-shaped lesions resembling limpets; or ostraceous psoriasis, distinguished by oyster shell-like lesions with concave centres. Histologically, they show abnormal keratinized squamiae with inflammation and seroexudate. Reactive or psoriatic arthritis would have been considered had joint involvement been present. Other possibilities included mycosis fungoides, a primary cutaneous lymphoma masquerading as scaly, infiltrative and converging plaques; and lichen planus, consisting of polygonal, pruritic and planar plaques. Biopsy proved negative for fungal elements using periodic acid–Schiff and Grocott methenamine silver stains but revealed dense hyperkeratosis overlying coalescing parakeratosis, acanthosis, scant intraepidermal intercellular oedema and dermal lymphocytic infiltrates, consistent with the diagnosis of psoriasiform spongiotic dermatitis.

Psoriasiform spongiotic dermatitis, an inflammatory dermatosis, manifests from conditions like psoriasis, nutritional deficiencies and HIV.^{1 2} It distributes symmetrically on elbows, knees, scalp and torso,² and excoriation of lesions leads to superinfection. It combines features of psoriasiform



Figure 1 Skin lesions of the left lower leg (A–C), right lower leg (D, E), dorsal surface of the right forearm (F), ventral surface of the left forearm (G) and abdomen (H). Rash on the ventral surface of the right upper arm (I). Nail psoriasis and rash on the dorsal aspects of the right hand (J) and left foot (K). Hyperkeratosis of the soles (K) and right palm (L).

Learning points

- ▶ Individuals with the combination of immunodeficiency, nutritional deficiency and psoriasis are at risk of developing psoriasiform spongiotic dermatitis.
- ▶ Differential diagnoses include Norwegian scabies, cutaneous blastomycosis, rupioid psoriasis, ostraceous psoriasis, reactive arthritis, psoriatic arthritis, mycosis fungoides and lichen planus.
- ▶ It combines histopathological features of psoriasiform dermatitis (characterised by regular epidermal hyperplasia and club-shaped dermal papillae, dilated papillary blood vessels and normal subpapillary blood vessels) and spongiotic dermatitis (defined by intraepidermal intercellular oedema, sparse dermal inflammatory infiltrate and slight dilatation of subpapillary vessels).



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dermatitis, characterised by regular epidermal hyperplasia or acanthosis, and spongiotic dermatitis, defined by intraepidermal intercellular oedema and the exocytosis of lymphocytes.³ Chronic spongiotic dermatitis acquires psoriasiform configuration over time, with diminishing spongiosis and more prominent epidermal acanthosis.²

Topical glucocorticoids and antiretroviral treatment were given, and the patient improved markedly 3 weeks later.

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