

## Dermato-venereological Quiz

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This 45-year-old Chinese gentleman presented with multiple well-defined itchy hyperkeratotic dry plaques over his right palm (Figure 1), right knee, forearms, elbows (Figure 2), scalp and back for more than 10 years. He was treated as prurigo nodularis with topical steroid without much improvement. Apart from isolated arthralgia over his right wrist and lower back, there was no systemic upset. His past health was unremarkable except a mild depressive episode.



**Figure 1.** Hyperkeratotic dry plaques over his right palm.

Investigations revealed mild impaired liver function, normal renal function and complete blood picture; anti-nuclear antigen, anti-ENA, HBsAg were negative. Skin scrapings for fungal culture showed the presence of *Trichophyton rubrum*. An incisional biopsy was performed (Figures 3 & 4).



**Figure 2.** Hyperkeratotic dry plaques over his right elbow.

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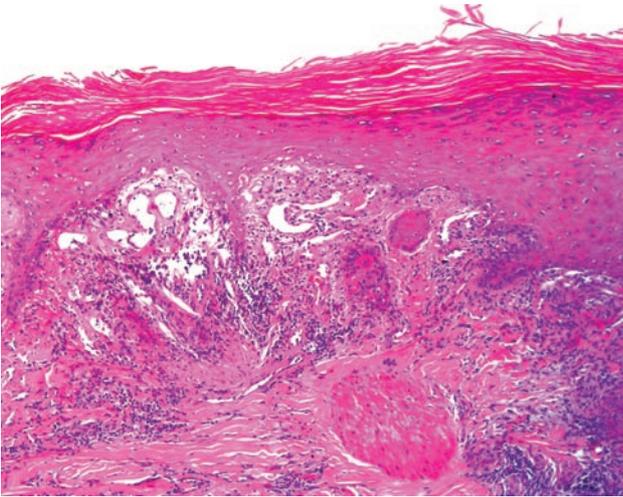
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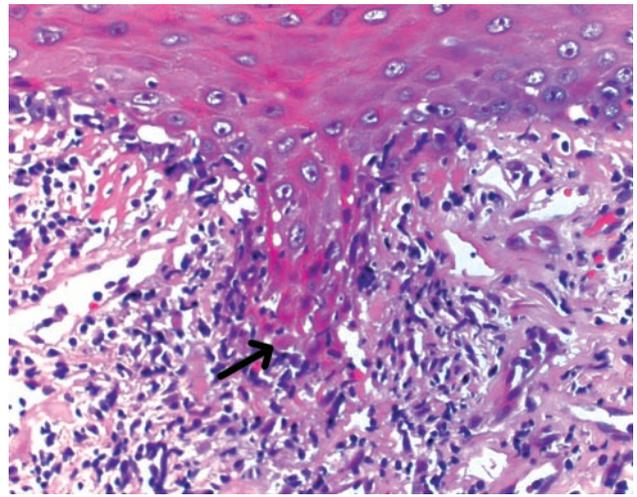
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**Figure 3.** Lichenoid infiltrate with epidermal basal vacuolar degeneration. The papillary dermis shows a few prominent capillaries with plump endothelial lining (H&E stain, Original magnification x 10).



**Figure 4.** Vacuolar degeneration of basal cells with Civatte bodies (arrow). Pigmentary incontinence with scattered melanophages is noted. Focal dermal-epidermal clefting with prominent capillaries are present (H&E stain, Original magnification x 40).

## Questions

- 1) What are the differential diagnoses?
- 2) What are the histopathological findings?
- 3) What is the role of finding *Trichophyton rubrum* in the skin scrapings in this clinical situation?
- 4) What is the most likely diagnosis?
- 5) What are the treatment options?

(Answers on page 244)

### **Answers to Dermato-venereological Quiz on pages 230-231**

- 1) The differential diagnoses included lichen simplex chronicus, hypertrophic discoid lupus erythematosus, hypertrophic lichen planus, tinea corporis and nummular eczema.
- 2) The biopsy showed a slightly acanthotic epidermis with focal parakeratosis and keratotic plugging. There was a lichenoid infiltrate involving the superficial and mid reticular dermis which was associated with epidermal basal vacuolar degeneration with Civatte bodies (arrow). Mild peri-appendageal infiltrates were also noted. Pigmentary incontinence with scattered melanophages and focal dermal-epidermal clefting with prominent capillaries were also present. Direct immunofluorescence study showed granular deposits of C3, weak IgG and IgM along the dermal-epidermal junction (not posted).
- 3) The tinea infection is a super-imposed infection, which is not uncommon in many hyperkeratotic cutaneous lesions, especially after treatment with potent topical steroids.
- 4) The diagnosis is hypertrophic discoid lupus erythematosus which can mimic other hyperkeratotic cutaneous lesions such as lichen simplex chronicus and hypertrophic lichen planus. In this case, the patient has been treated as lichen simplex chronicus and prurigo nodularis for a long time without improvement before a skin biopsy was done to confirm the diagnosis.
- 5) The treatment options include potent topical and/or intralesional steroid, anti-malarial agents, systemic steroid, systemic retinoid and thalidomide.