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Dermato-venereological Quiz

SY Cheng 鄭秀儀, GPS Yeoh 楊佩成, LY Chan 陳來源

A 54-year-old man presented with asymptomatic facial rash for two months. The lesion did not respond to topical steroid. His past health was good. Physical examination showed arcuate and annular erythematous, slightly indurated plaques over glabella (Figure 1).

Questions

1. What are the clinical differential diagnoses?
2. Diagnostic skin biopsy was preformed. The histology was shown (Figures 2 & 3). What is the diagnosis?
3. What are the most likely causative agents?
4. What is the treatment?

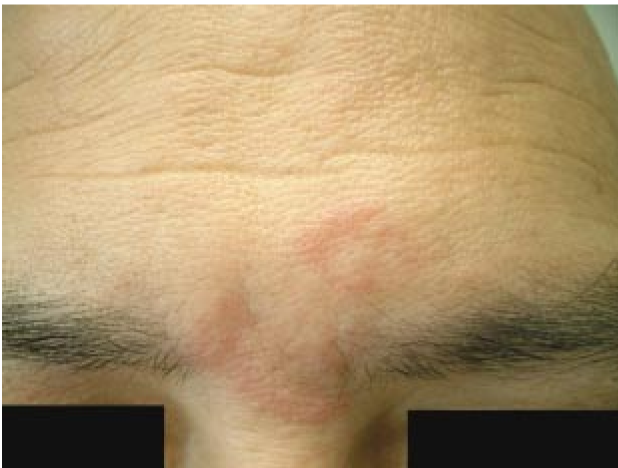

Figure 1.

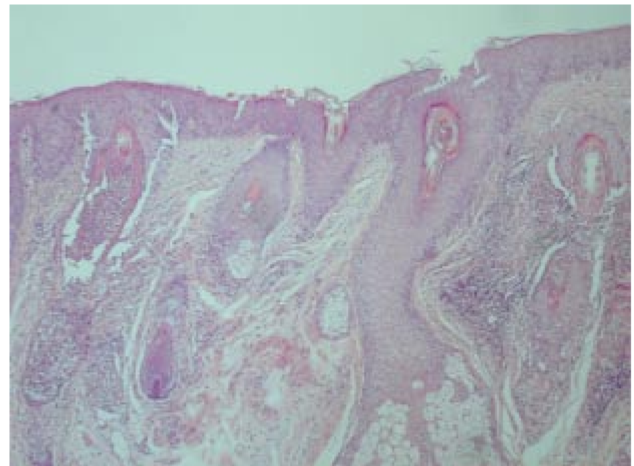

Figure 2.

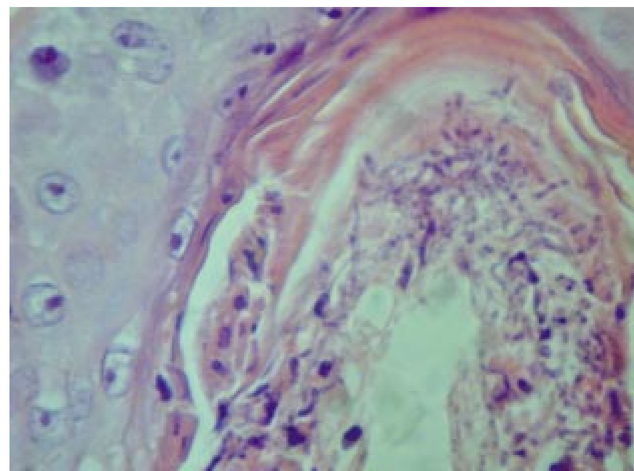

Figure 3.

Private Dermatologists, Hong Kong

SY Cheng, FHKCP, FHKAM(Medicine)
LY Chan, FHKCP, FHKAM(Medicine)

Private Pathologist, Hong Kong

GPS Yeoh, FRCPA, FHKAM(Pathology)

Correspondence to: Dr. SY Cheng

Room 602, 6/F, Luk Hoi Tong Building, 31 Queen's Road Central, Hong Kong

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1. The clinical differential diagnoses include lymphocytoma cutis, tumid lupus erythematosus, granuloma annulare, deep form of erythemata annulare centrifugum, dermatophytoses, lupus vulgaris, sarcoidosis and leprosy.

2. Figures 2 & 3 show acute folliculitis and perifolliculitis. Neutrophils are seen in some of the hair follicles forming microabscess. Acute inflammation is also seen in the perifollicular region associated with ruptured follicles. In some of the follicles, there are fungal hyphae. The diagnosis is Majocchi's granuloma. It is defined as a nodular perifolliculitis due to cutaneous dermatophyte infection. It is postulated to be a type IV immune response with foreign body granuloma formation. The fungal infections may be associated with dermatophytosis at other areas, immunosuppression and/or the use of topical steroid.

3. Majocchi's granuloma is frequently due to Trichophyton rubrum infection. Other organisms include Trichophyton violaceum, Trichophyton mentagrophytes and Epidermophyton floccosum. Usually no hyphae can be found in the potassium hydroxide preparation of the scales and pustules. However, fungal hyphae can be found in tissue culture and histology.

4. A combination of systemic and topical antifungal therapies is the treatment of choice. Systemic antifungal drugs such as terbinafine or itraconazole, should be given for at least four to six weeks. Topical antifungal alone is not effective. Secondary bacterial infection should be treated and any exacerbating factors such as the use of topical steroid and occlusion should be avoided.

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