

## Answers to Dermato-venereological Quiz on page 41

1. Apart from the obvious patchy alopecia over the parietal scalp, there were several erythematous scaling plaques with crusts on top in the area of alopecia. There were also multiple broken hair shafts within the area of the alopecia.
2. Dermoscopic examination, Wood's lamp examination and hair samples for microscopy with potassium hydroxide preparation. In cases of tinea capitis, dermoscopic examination may demonstrate comma hair, corkscrew hair, black dots, broken hair shaft, hair casts, horizontal white bands and piedra (white or black fusiform nodules on hair shaft). Wood's lamp examination is useful for detecting ectothrix infections caused by *Microsporum spp.*: infected hairs fluoresce a bright green to yellow-green colour (same patient, Figure 2). *Trichophyton spp.* cause endothrix infections and do not demonstrate fluorescence. Microscopic examination may reveal fungal hyphae and spores in the hair shaft. Skin scrapings and hair samples plucked from the infected area are sent for culture to identify the causative fungal organism.
3. The diagnosis is *Microsporum tinea capitis*. The culture of hair samples identified *Microsporum canis*.
4. A history of animal contact, in this case a newly acquired cat, is helpful in elucidating the aetiology of the infection.
5. The management depends on the species of fungal organism identified and the clinical status of the infection and inflammation. In children, the first-line therapy is oral griseofulvin. The dosage is given according to body weight, 20-25 mg/kg/day for microsized preparation. Itraconazole, terbinafine and fluconazole are effective alternatives. Terbinafine is especially effective for *Trichophyton spp.*, while griseofulvin is more effective for *Microsporum spp.*<sup>1</sup> The usual treatment duration is four to six weeks, but a longer duration is usually required for *Microsporum* infections. Oral steroids may be used for kerion. Shampooing with selenium sulphide or ketoconazole may be used in early stage of therapy to reduce the viable fungal spores and thus prevent spreading. Response to treatment can be monitored by Wood's lamp in cases infected by *Microsporum spp.* and by repeated hair cultures as well. Household and close contacts of patients should be examined for silent carriage of fungus. Asymptomatic carriers should be treated with shampoo and oral antifungals.



### Reference

1. Tey HL, Tan AS, Chan YC. Meta-analysis of randomized controlled trials comparing griseofulvin and terbinafine in the treatment of tinea capitis. J Am Acad Dermatol 2011;64:663-70.