Kerion

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A healthy eight-year-old boy was referred for incision and drainage of an abscess on his scalp, which had not responded to systemic antibiotic treatment. The lesion had first appeared as a circular patch of hair loss for several weeks and was first treated with ketoconazole 2% cream for two weeks, but then it progressed into an inflammatory mass and antibiotics were given. The patient had no fever or history of recent travel. On examination, he had a 5 x 6 cm erythematous, boggy mass with purulent discharge, alopecia and small black dots (Figure 1). In addition, he had ipsilateral cervical lymphadenopathy. He had several circumscribed erythematous and scaly plaques on his left cheek, trunk and extremities. His father had three similar skin lesions on his arm and reported that their pet cat had bald patches. Potassium hydroxide preparation of skin scrapings from the patient's lesion showed fungal hyphae. Kerion was diagnosed and was successfully treated with oral griseofulvin (20 mg/kg daily) for 12 weeks. After four weeks, *Trichophyton tonsurans* was isolated from the culture.

Kerion is an inflammatory type of tinea capitis. It is often seen with zoophilic ectothrix dermatophytes such as *Microsporum canis*, but it is increasingly caused by endothrix infections such as *T. tonsurans*, especially in urban areas.[1] Kerion is caused by a T cell–mediated hypersensitivity reaction to the causative dermatophyte.[2] It is characterized by a tender, erythematous, suppurative swelling with associated alopecia and regional lymphadenopathy and is often misdiagnosed as a bacterial infection, which may lead to unnecessary antibiotic or surgical interventions. Treatment delay may result in permanent hair loss.

Systemic antifungal treatment is required for tinea capitis and the type depends on the dermatophyte involved: terbinafine is more effective against *Trichophyton* species and griseofulvin against *Microsporum* species,[3] but the latter is no longer used in Canada. To prevent reinfection and limit spread, all household members should be screened and treatment prescribed to those found to be positive.[1,4] In our patient's case, we assumed the cat was the source (harbouring *M. canis*) and prescribed griseofulvin. However, the source of the causative dermatophyte, *T. tonsurans*, is unclear.

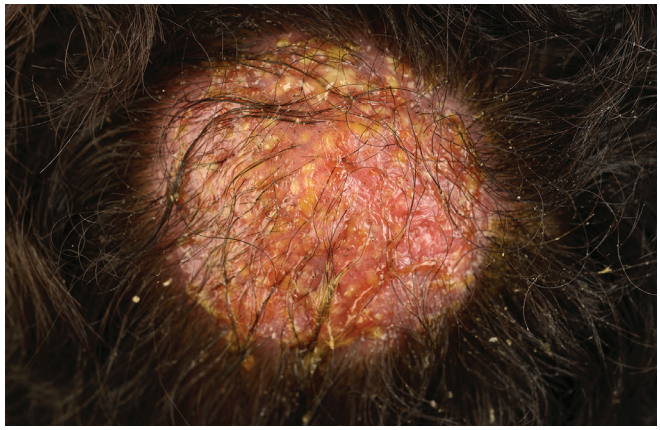

Figure 1: Erythematous, boggy nodule with purulent discharge and alopecia in an eight-year-old boy. Broken stubs of hair in the lesion give the appearance of black dots and are commonly seen in tinea capitis caused by *Trichophyton tonsurans*.

References

1. Fuller LC, Barton RC, Mohd Mustapa MF, et al. British Association of Dermatologists' guidelines for the management of tinea capitis 2014. *Br J Dermatol* 2014;171:454-63.
2. Proudfoot LE, Morris-Jones R. Images in clinical medicine. Kerion celsi. *N Engl J Med* 2012;366:1142.
3. Gupta AK, Drummond-Main C. Meta-analysis of randomized, controlled trials comparing particular doses of griseofulvin and terbinafine for the treatment of tinea capitis. *Pediatr Dermatol* 2013;30:1-6.
4. Moriarty B, Hay R, Morris-Jones R. The diagnosis and management of tinea. *BMJ* 2012;345:e4380.

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