

Letter to the Editors

Kerion Celsi caused by *Trichophyton tonsurans* with dermatophytid reaction



Kerion de Celso producido por Trichophyton tonsurans con reacción dermatofítica

Dear Editors,

We herein set out the case of a 6 year-old boy who presented with a two week history of pruritus and pain on the scalp, and purulent drainage. His medical history was unremarkable and any previous contact with pets was not reported. Through physical examination we observed a crusty carbuncle-like boggy plaque, 11 cm × 10 cm, with clear demarcation of the borders and overlying erythema and alopecia surrounding the lesion (Fig. 1a). Cervical and

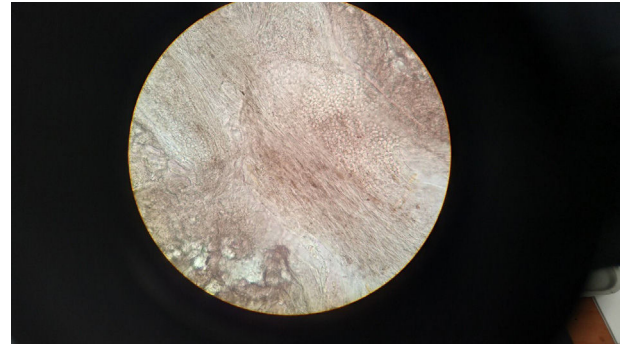


Fig. 2. Endothrix invasion of the hair.

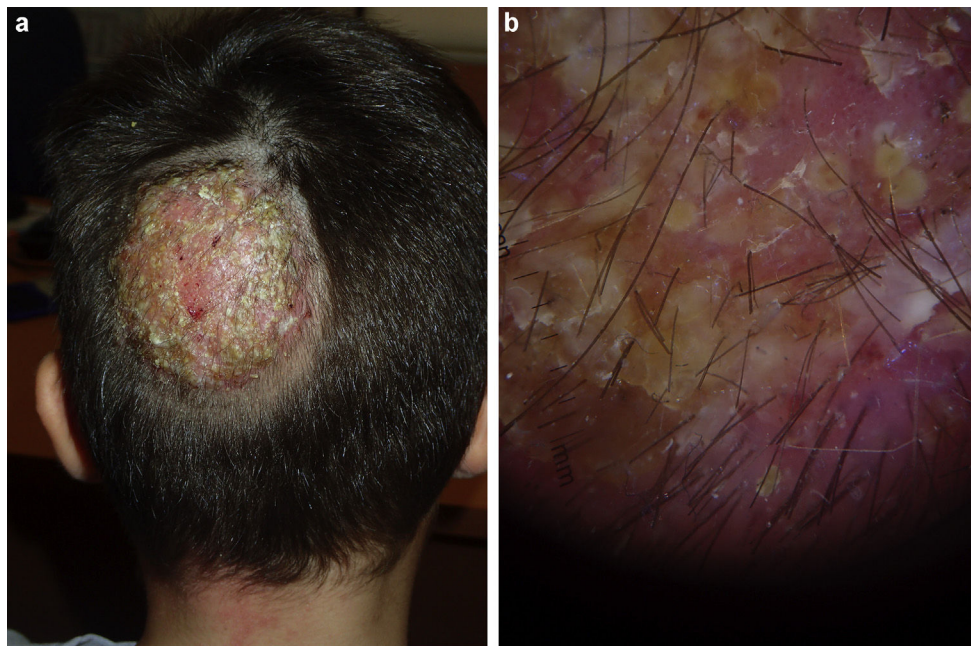


Fig. 1. (a) Boggy plaque with purulent drainage and alopecia surrounding the lesion. (b) Dermoscopy: broken hairs, black dots and pustules.

suboccipital-ipsilateral lymphadenopathies were revealed. Under dermoscopy, broken hairs, black dots and pustules were observed (Fig. 1b). Potassium hydroxide preparation of skin scrapings and hair showed multiple hyaline septate hyphae and endothrix invasion of the hair, with arthroconidia within the hair shaft and the cuticle layer remaining intact (Fig. 2).

Complete blood cell count, as well as liver and renal function tests, were within normal ranges, with normal values for CD4 and CD8 lymphocytes count and immunoglobulins, and increased

C-reactive protein. Serology for HIV was negative. Sulfur yellow colonies with granular surface and red reverse grew on Sabouraud glucose agar culture (Fig. 3a). Numerous microconidia were seen microscopically, with varying shape (tear-shaped, pyriform, club-shaped or swollen) and size (Fig. 3b). *Trichophyton tonsurans* was identified by morphologic features and by mass spectrometry (MALDI-TOF MS biotyper, Bruker). The patient was treated with selenium sulphide shampoo and oral terbinafine (62.5 mg/day) based on patient's weight (19 kg). One week after the systemic

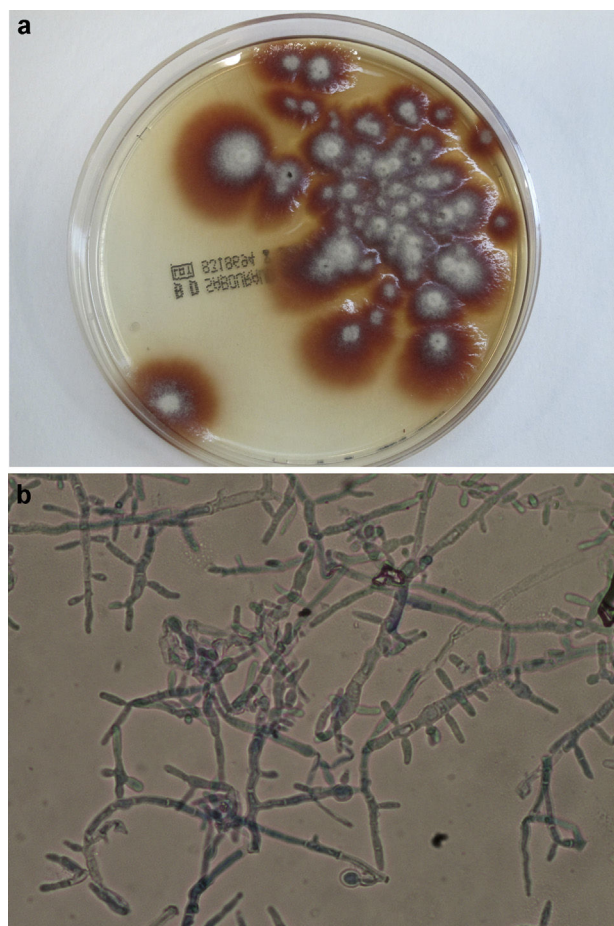


Fig. 3. (a) *Trichophyton tonsurans* isolated in Sabouraud glucose agar. (b) Microconidia with different sizes or shape: tear-shaped, pyriform, club-shaped or swollen.

antifungal therapy was started, the patient presented with acute inflammation on the scalp lesion and eczematous lesions in the retroauricular area, as well as on the neck, as a dermatophytid reaction (Fig. 4). However, the treatment was maintained for 8 weeks, leading to complete healing. Systemic corticosteroids were not added because the dermatophytid reaction was not widespread.

Kerion clinical form in *tinea* represents a delayed hypersensitivity reaction to the causative dermatophyte. Children with kerion are more likely to develop marked regional lymphadenopathy and produce id reactions. If early treatment is not started, kerion can cause scarring alopecia.^{1,2} The use of corticosteroids remains unclear. Some authors recommend them to minimize the risk of scarring alopecia. However no significant difference has been found between griseofulvin alone and griseofulvin plus oral corticosteroids in a comparative trial.³ Dermatophytid reactions may occur before or after beginning a systemic antifungal therapy. Systemic corticosteroids can be added when the dermatophytid reaction is extremely widespread.^{1,2} It is important to distinguish a dermatophytid reaction from a drug reaction.

Conflict of interests

None of the authors have a conflict of interest nor have received funding resources regarding the case presented.



Fig. 4. Eczematous patches, along with an acute inflammation (Kerion Celsi), on the neck and ears.

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Elisabeth Gómez-Moyano^{a,*},
Ana María Fernández-Sánchez^b, Vicente Crespo-Erchiga^a,
Leandro Martínez-Pilar^a

^a Dermatology Department, Hospital Regional Universitario de Málaga, Spain

^b Microbiology Department, Hospital Regional Universitario de Málaga, Spain

* Corresponding author.

E-mail addresses: eligm80@hotmail.com,
elisabeth.gomez.moyano@gmail.com (E. Gómez-Moyano).

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