

Multiple Inflammatory Lesions on the Abdomen: A Quiz

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A 36-year-old Caucasian woman was admitted with a clinical diagnosis of unspecified inflammatory dermatitis located on the abdomen. The patient stated that she was in good general health and that she was not on therapy with systemic drugs. She also declared that the dermatitis had appeared 3 weeks earlier: the patient feared that the cause was a hedgehog that she used to place on her bare abdomen (Fig. 1). The hedgehog was a gift from the woman's boyfriend, who had just returned from Africa.

Dermatological examination revealed the presence of 3 similar lesions located exclusively on the abdomen: they were erythematous plaques, oval in shape, 2x1 cm in diameter, with well-defined, vesicular-pustular borders (Fig. 2). The patient complained of severe pruritus.

General physical examination did not reveal anything pathological.



Fig. 1. African pygmy hedgehog *Atelerix albiventris*.

What is your diagnosis?

Differential diagnosis 1: Multifocal impetigo

Differential diagnosis 2: Multifocal tinea corporis

Differential diagnosis 3: Superinfected eczema

Differential diagnosis 4: Inflammatory lesions caused by scratching

See next page for answer.



Fig. 2. Three similar, erythematous plaques, oval in shape, 2x1 cm in diameter, with well-defined, vesicular-pustular borders, located on the abdomen.

ANSWERS TO QUIZ

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**Diagnosis: Multifocal tinea corporis probably caused
by *Trichophyton erinacei* transmitted by the African
hedgehog *Atelerix albiventris***

Bacteriological examinations were negative. Direct microscopic examination, using 20% potassium hydroxide, was positive. Fungal cultures on Sabouraud dextrose agar (SDA) supplemented with chloramphenicol, SDA with chloramphenicol plus gentamicin, and SDA with chloramphenicol and cycloheximide were positive for *Trichophyton erinacei*. It was not possible to distinguish this species from other dermatophytes of the *Trichophyton mentagrophytes* species complex, such as *Arthroderma benhamiae*, because the sequence-based identification was not performed. However, it was possible to perform mycological examinations also on the patient's hedgehog: a positivity for *T. erinacei* was detected in scales and prickles. The patient was successfully treated with terbinafine cream (2 applications/day for 3 weeks) and oral terbinafine (250 mg/day for 6 weeks).

T. erinacei was first described in 1960 by Marples and Smith (1). It was named in the past *T. mentagrophytes* var. *erinacei* and *T. proliferans*. *T. erinacei* is a zoophilic dermatophyte: 2 species of hedgehogs are the most frequent source of infection in humans: the African pygmy hedgehog or four-toed hedgehog (*Atelerix albiventris*) and the West European hedgehog (*Erinaceus europaeus*). Rare cases of human infections are transmitted by the Northern white-breasted hedgehog (*Erinaceus roumanicus*) (2). Other sources of human infections are humans themselves (3–5), guinea pigs, mice (4), soil (6), and even Asian elephants (7).

Tinea manuum is the most frequent manifestation of *T. erinacei* infection (8). Other not rare manifestations are tinea capitis (6, 9) and tinea barbae (5, 10): both can appear as a kerion (5, 6, 10). As with other human mycoses caused by zoophilic dermatophytes, clinical manifestations

of *T. erinacei* infections are characterized by inflammatory lesions, especially pustular lesions. Tinea corporis is rare. To our knowledge, multifocal tinea corporis caused by *T. erinacei* has never been reported. Furthermore, some infections occurred on the face, arms, back, thighs, knees, legs, and toes. One case of proximal subungual onychomycosis has also been described. According to data in the literature, oral terbinafine is the therapy of choice (6): cases of resistance to fluconazole and itraconazole have been not infrequently reported.

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