

Rosacea-Like Tinea Incognito due to *Trichophyton mentagrophytes* vr. *mentagrophytes*

Tinea incognito is a dermatophytosis with atypical clinical manifestation in the absence of the typical "ringworm" (1). The term tinea incognito was originally used in 1968 by Iwe and Marks in 14 patients with atypical dermatophytic infection caused by a previous steroid treatment (2). Since then, several cases of tinea incognito have been described after topical application of pimecrolimus and tacrolimus, although the use of corticosteroids continues to be the most common trigger of the disease (3).

A 47-year-old woman presented at our Institute with a 3-month history of erythematous papules with rare pustules on the face. The patient reported a three-month application of topical corticosteroids and metronidazole cream with progressive exacerbation of the eruption.

Physical examination revealed numerous papules and some pustules forming an erythematous plaque localized on the face (Fig.1). No pathologic signs were observed on the rest of the body and nails. The patient's history was otherwise unremarkable.



Figure 1. Papules and some pustules forming an erythematous plaque on the face.

Scrapings from the facial lesion, examined directly in 10% potassium hydroxide solution, showed the presence of dermatophyte hyphae.

Culture on Mycosel Agar (agar-dextrose + cycloheximide + chloramphenicol) at 27 °C for three weeks yielded colonies with a powdery and granular surface and yellowish reverses (Fig. 2). Microscopically, we observed round and pyriform microconidia, spiral hyphae and rare smooth-walled macroconidia. These findings confirmed the diagnosis of dermatophyte infection caused by *Trichophyton mentagrophytes* vr. *mentagrophytes*.

A diagnosis of rosacea-like tinea incognito was made and the patient started therapy with oral terbinafine 250 mg/die for 4 weeks, with progressive and total resolution of the facial lesions.

Tinea faciei, a relatively uncommon dermatophyte infection, usually shows up as an erythematous, scaly patch with an annular edge, the size of which gradually increases. Clinical presentation of the condition is often atypical. The absence of classical features of ringworm, likely because of the complex anatomy of the face, makes the initial diagnosis difficult and often leads to misdiagnosis of tinea faciei (1).



Figure 2. Macroscopic appearance of *Trichophyton mentagrophytes* colonies.

A broad range of skin diseases, like seborrheic dermatitis, cutaneous candidiasis, atopic dermatitis, contact dermatitis, granuloma annulare, systemic and discoid lupus erythematosus, rosacea, drug-induced lupus, perioral dermatitis, pityriasis alba, pityriasis rosea, sarcoidosis, tuberculosis, psoriasis vulgaris, and polymorphic light eruption can mimic tinea faciei (1-3).

This can lead to misdiagnosis of the disease, consequential use of steroids, and finally to worsening of the disease and onset of tinea incognito.

The pathogenesis of tinea incognito is presumably linked to a steroid-modified response of the host to fungal infection rather than to a direct pharmacological effect on the mycete (3). Topical steroids suppress the local immune response and allow the fungus to grow easily. As a result, the fungal infection may take on a bizarre appearance.

The prevalence of dermatophytes responsible for the condition shows marked geographical variation (4,5).

In Italy, *Trichophyton rubrum*, *Trichophyton mentagrophytes*, *Epidermophyton floccosum*, *Microsporum canis*, *Microsporum gypseum*, *Trichophyton violaceum*, and *Trichophyton erinacei* have been reported as the main etiologic agents (5).

Tinea faciei responds to treatment with topical or/and oral antifungals.

Patients with highly inflamed lesions, resistant, extensive and complicated disease, or those with multiple plaques may require oral antifungal therapy, as in our case.

Terbinafine, itraconazole, and fluconazole have been shown to be superior to griseofulvin because they concentrate at the level of the skin (4).

The presented case highlights the importance of considering tinea on the differential diagnosis of all facial eruptions and the essential role of mycological examination to make a correct diagnosis and treatment.

References

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**Roberta Calcaterra¹, Raffaella Fazio¹,
Concetta Mirisola¹, Luigi Baggi^{1,2}**

¹National Institute for Health, Migration and Poverty, ²Torvergata University of Rome, Rome, Italy

Corresponding author:

Dr. Roberta Calcaterra, MD
National Institute for Health, Migration and Poverty (NIHMP)
Via di San Gallicano 25/a
Rome
Italy
calcaterra@inmp.it

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