# Tinea incognito due to *Trichophyton rubrum* responsive to topical therapy with isoconazole plus corticosteroid cream

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**Key words:** Tinea incognito, *Trichophyton rubrum*, isoconazole, corticosteroid cream

## Background

*Trichophyton rubrum* has become a prevalent cause of dermatophyte infection in Italy. About 4000 patients a year are seen at our clinic: approximately 500 presenting with *T. rubrum* dermatomycosis each year. Typical clinical manifestations are rarely inflammatory and usually present as tinea corporis or tinea unguium. Tinea incognito describes a mycotic infection in which the underlying clinical morphology has been modified by the application of topical or systemic corticosteroid, which can cause diagnostic and therapeutic delay.[1–3]

## Case report

### Patient history

A 38-year-old male with serious hepatopathy and chronic renal insufficiency (CRI) presented to his usual doctor with a cutaneous, erythematous, desquamative and pruriginous eruption on both legs. Eczematous dermatitis was suspected and a topical corticosteroid cream containing desoximetasone was prescribed for 3 months. Although he later admitted that he had not always been compliant with applying the medication as directed, the skin rash and symptoms regressed with therapy. After treatment with the corticosteroid was stopped, however, the patient experienced a rapid worsening of the dermatitis, and presented to the Institute of Dermatological Sciences of the University of Milan.

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### Dermatological findings

The patient had obvious erythematous and thin scaly patches with follicular scabs on both legs (Fig. 1). Dermatological examination revealed a suspected onychomycosis of the first toe of the left foot (Fig. 2).

### Investigation and diagnosis

A potassium hydroxide solution was used to microscopically examine the skin scales from the patient's lesions and this indicated the presence of many dermatophyte hyphae. Sabouraud's culture examination yielded colonies of *T. rubrum*, which was present in samples cultured from both legs and from the nail on the left foot.

### Treatment and outcome

Due to the patient's general condition (i.e. severe hepatopathy and CRI), systemic therapy was not

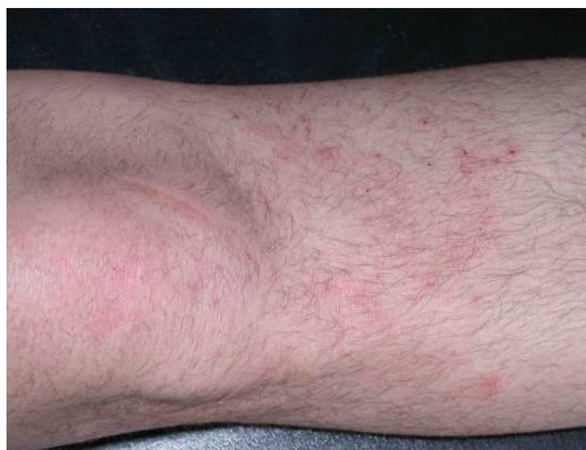

**Figure 1** Erythematous and thin scaly patches with follicular scabs were present on both the patient's legs.

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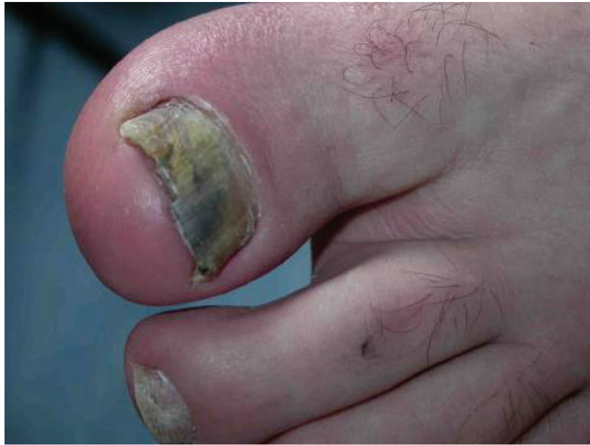

**Figure 2** Onychomycosis of the first toe of the left foot was suspected as the cause of the infection.

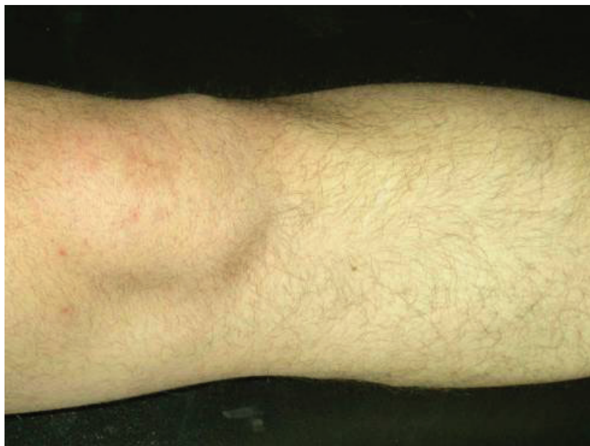

**Figure 3** The patient's dermatitis resolved after topical treatment with a combined antifungal/corticosteroid (isoconazole/diflucortolone) cream.

recommended. His lack of compliance with the previous medication was also an issue. The patient was treated with a topical cream containing the antifungal agent isoconazole nitrate and the corticosteroid diflucortolone valerate (Travocort®; Intendis, Berlin, Germany). This was to be applied twice a day for the first 2 weeks and then once a day for a further 2 weeks.

A rapid reduction in the patient's skin lesions and symptoms was observed with the combined topical therapy such that after 20 days dermatitis had almost completely disappeared on both legs (Fig. 3). The patient's onychomycosis was still present but the patient was not experiencing any symptoms and he refused further treatment. Microscopic and/or cultural examinations were not performed after therapy. As there was no patient follow-up, it is not known if there was a relapse after topical therapy. This case may represent as one of the first cases of tinea incognito treated with topical isoconazole plus corticosteroid.

## Conclusion

The diagnosis of tinea corporis can be easily confused with contact dermatitis, particularly when the clinical presentation of the skin complaint is altered by the use of topical steroids. This patient had an inflammatory follicular element to his condition which should have cast doubt upon a diagnosis of eczema. It is likely that the patient's onychomycosis, which was later found during an objective dermatological examination, is the source of his infection, when the mycological agent has been transmitted from the nail to the legs.

Random and improper use of a corticosteroid preparation resulted in the enlargement of this patient's dermatitis, with folliculitis and inflammatory lesions appearing once the corticosteroid cream was stopped. The presence of cutaneous inflammatory lesions and multiple fungal hyphae justified the use of a topical treatment containing an anti-mycotic and an anti-inflammatory agent to improve the patient's symptoms and to avoid another rebound effect after treatment ended.

After the skin infection had resolved successfully on both legs, with no objective evidence of fungal infection, the patient decided to discontinue treatment. Despite highlighting the need to treat the possible source of the infection (i.e. the onychomycosis), the patient, although advised, was unwilling to be treated in the absence of any symptoms and systemic therapy was not recommended due to his hepatopathy and CRI. In this case as the onychomycosis was left untreated, the patient was only partially cured.

## Conflict of interest

The author was supported by Intendis GmbH in the development of this case report.

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## Additional Reading

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