

Primary onychomycosis with granulomatous *Tinea faciei*

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TO THE EDITOR

We report a 67-year-old male who was referred to us due to subfebrile temperatures, nocturnal diaphoresis and painful lesions on his left cheek. His past medical history revealed that he has severe type 1 diabetes mellitus, hypertension, hepatitis A and pulmonary tuberculosis. The patient was under topical therapy with ciclopirox olamine lacquer for onychomycosis of the toenails of both feet.

Clinical examination disclosed violet to dark red confluent plaques involving the left cheek and neck (Figure 1). Previous therapy with doxycycline and flucloxacillin was ineffective. Due to lack of response to therapy and associated problems, clinical investigations were performed in order to exclude systemic tuberculosis and other systemic disorders, to arrive at the diagnosis and start appropriate therapy.

Direct microscopic examination of scrapings obtained from the left cheek revealed the presence of fungal elements, while those from the toenails and beard were negative. Fungal cultures demonstrated *Trichophyton rubrum* from the left cheek, beard and toenails. Histological sections showed multinucleate giant cells with fungal elements within the cytoplasm.

There were no abnormalities in lymphocyte subpopulations, and serum or urine protein electrophoresis was normal. HIV, p-ANCA, c-ANCA and ANA were all negative. PCR in lesional skin revealed no *Mycobacterium tuberculosis* DNA, and Ziehl-Neelsen staining was also negative. After similar microbiologic investigations from sputum sample, as well as pulmonary imaging studies, the possibility of active tuberculosis was ruled out.

After starting systemic therapy with itraconazole 100 mg twice a day for 14 days (4 cycles) and local therapy with solution of 3% brilliant green in combination with octenidine dihydrochloride solution, full remission was achieved.

Figure 1: Hemorrhagic, confluent plaques and papules in the area of the left cheek and neck present over 2 months.



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Trichophyton rubrum and *Trichophyton violaceum* are the most common anthropophilic dermatophytes responsible for *Tinea barbae*.^{1,2} We present here a case of onychomycosis with granulomatous form of *Tinea barbae*. *Trichophyton rubrum* was isolated both from the toenails and the lesions of the neck. Onychomycosis was present for over 2 years, but lesions of the left cheek and the neck for only about 2 months. PAS staining is mandatory in cases in which a cutaneous granulomatous infiltrate is observed on histology. Ziehl-Neelsen staining and PCR amplification in the tissue helped excluding cutaneous tuberculosis.

Painful papules and nodules with tendency to confluence could suggest the diagnosis of Wegener's granulomatosis, which makes the serological determination of c-ANCA and histopathological analysis mandatory.³ Attention should be paid to the fact that in a high percentage of patients (up to 40%) this result can be negative.³

Our case is interesting due to the presence of disseminated *Trichophyton rubrum* infection despite the lack of evidence of serious immunodeficiency, which suggests infection/reinfection due to a permanent contact with infected animals/humans from one side^{4,5} or autoinoculation in the context of possible deregulations in local immune defense mechanisms of the skin.^{4,5}

Treatment of fungal skin infections, such as *Tinea pedis* or onychomycosis, may prevent infection spread, highlighting the importance of treating the primary focus of infection.

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