Pseudomembranous-like Tinea of the Scrotum Infected by *Microsporum gypseum* in a Young Man

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**Abstract**

*Microsporum gypseum* is a geographically widespread geophilic fungus that infects animals and humans. *M. gypseum* infection on the scrotum is very rare and can be easily misdiagnosed because of a lack of inflammatory reaction. Here we describe a patient with pseudomembranous-like tinea of the scrotum resulting from *M. gypseum*.

**Key Words:** Immunodeficiency, *Microsporum gypseum*, scrotum

**Introduction**

Pseudomembranous-like tinea of the scrotum is a very rarely seen fungal infection primarily caused by *Microsporum gypseum*. It clinically manifests as white maculopapules and can be easily misdiagnosed because of a lack of inflammatory reaction. There are few cases reports of pseudomembranous-like tinea of the scrotum in the literature. We describe a typical case of this condition resulting from *M. gypseum*.

**Case Report**

An 18-year-old man presented with asymptomatic white maculopapules on the scrotum [Figure 1]. He unintentionally discovered the lesions on the scrotum during a bath 6 days previously but neglected them because of no cutaneous symptoms. However, a few days later, the size and number of the lesions had gradually increased. Additionally, the white maculopapules disappeared after washing with water but emerged again after drying. He denied a history of direct contact with soil or domestic animals and a similar family history. Based on the clinical finding, we initially made the diagnosis of milia. A skin biopsy from the lesion was taken. Histopathological examination revealed numerous hyphae and spores in the stratum corneum after Periodic acid–Schiff (PAS) staining, which was suggestive of a superficial fungal infection [Figure 2]. Cultures of scales from the lesions on Sabouraud dextrose agar medium revealed relatively fast growth. Furthermore, the colonies changed from hairy to powdery to granular, the colony surface was beige, while the reverse side ranged from beige to reddish brown [Figure 3]. Microscopic examination of the colonies showed swollen, thin-walled ellipsoid macroconidia divided into three to six cells [Figure 4], the fungus *M. gypseum* was identified. These findings indicated pseudomembranous-like tinea of the scrotum. The patient was treated with topical naftifine hydrochloride cream for 15 days, and the lesions disappeared without relapse.

**Discussion**

*M. gypseum* is a geographically widespread geophilic fungus, it has a latent ability to infect animals as well as the keratinous tissues of humans. It has been also to verified that by histopathologic examination of a skin biopsy from the lesion in our subject. Infection with this organism often results from direct contact with either soil or domestic pets. Tinea cruris caused by *M. gypseum* are relatively rarely compared with other dermatophyte infections involving the scrotum.
The clinical manifestations caused by *M. gypseum* may show a classical ringworm pattern, or an unusual clinical presentations, such as scutula-like,[4,6] vesicular or granulomatous,[9] or white paint dots, which can make it more difficult to make an accurate diagnosis.[2,3,5] Our patient manifested white paint dots and whitish pseudomembranes. These atypical features can be attributed to the deterioration of the immune system.[6,9] However, our patient is a young men without any signs of immunodeficiency, the reasons why those patients without immunodeficiency show these manifestations remain to be unclear, it may be related to locally prevailing hot and humid conditions and hormone levels.[9] Oral itraconazole and terbinafine have been given successfully in some immunodeficient patients with scrotal *M. gypseum* infection.[3,4,4] Our patient was successfully treated with topical antifungal agents, he experienced no relapses.

**What is new?**
A fungal infection, in a certain occasion, appears with atypical clinical manifestations such as white paint dots and whitish pseudomembranes. Although it was diagnosed finally by the fungal culture in this case, histopathologic examination of a skin biopsy specimen was in favor of our diagnosis.

**References**

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