INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

DEEP DERMATOPHYTOSIS: A SERIES OF 11 CASES

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Background: Dermatophytosis is the most common superficial fungal infection in human. In very rare occasions, dermatophytes are able to enter deeper into the dermis and cause invasive form of infection. Deep dermatophytic infections are more commonly seen in patients with immunosuppression or specific genetic predispositions. Here, we report the clinical data from a series of 11 cases of deep dermatophytosis to characterize this rare infection and share our experience of its management.

Observation: The clinical data of 11 cases of deep dermatophytosis were summarized. Seven of the patients had long-time chronic superficial dermatophytosis before deep infection occurred. Four patients had underlying diseases that could affect the immune system, including solid organ transplantation, Evans syndrome and myelofibrosis. The most common affected site was the lower limbs, followed by the trunk and face. Eight cases presented as solitary skin lesion, 2 cases had multiple lesions, and 1 case developed disseminated infections with bone involvement. The major clinical manifestations were subcutaneous nodules, masses and ulcerations. On histopathology, deep dermatophytosis showed an inflammatory granulomatous infiltration, with the presence of fungal hyphae and/or conidia. Two cases revealed microcolonies of hyphal aggregates with Splendore-Hoeppli phenomenon indicating pseudomycetoma. Tissue culture indicated that six cases were caused by Trichophyton rubrum, 2 by Microsporum canis, 1 by T. verrucosum and 1 by T. interdigitale. Most of the cases responded well to long-term antifungal therapy, while the case with disseminated pseudomycetoma failed several combination therapies and was died of complications.

Key message: Our study demonstrated that deep dermatophytosis generally has good prognosis with long-term antifungal therapy, but disseminated case shows poor prognosis likely due to the immunity status. The disease is easily misdiagnosed because of its rarity. Doctors should have higher awareness of deep dermatophytosis in clinical practice. Histopathological and mycological examination are needed for earlier diagnosis of the disease.