Case Letter

A Case of Localized Scleroderma Mimicking Tinea Cruris

To the Editor:

Localized scleroderma is a chronic sclerosing skin disorder of unknown etiology. It is characterized by circumscribed areas of fibrosis limited to the skin and subcutaneous tissue.[1] Clinical manifestations of localized scleroderma are diverse and range from a subtle circumscribed patch to generalized sclerosing plaques causing functional impairment. Its rarity and diverse clinical presentation sometimes result in misdiagnosis. We report a patient with morphea in the inguinal region for a year that was misdiagnosed as tinea cruris.

A 59-year-old woman presented with brownish patches with erythematous borders in the inguinal area bilaterally of 1 year's duration (Figure 1). The patient was treated with oral and topical antifungal agents for several months with the diagnosis of tinea cruris at a local clinic; none of the medications were effective. Physical examination revealed hyperpigmented patches on both inguinal areas that mimicked tinea cruris, except for the abnormally firm consistency of the skin. Fungal organisms were not detected by direct microscopic examination with potassium hydroxide 10% or fungal cultures. A skin biopsy from the center of the lesion showed dermal fibrosis with increased collagen fibers and atrophic appendages compared to the periphery of the lesion (Figure 2). The diagnosis of localized scleroderma was confirmed and topical steroids and calcipotriol were prescribed. The patient showed mild improvement after 1 month.

According to a retrospective review of 52 patients with localized scleroderma, lower limb involvement of localized scleroderma is not common.[2] There are few case reports of localized scleroderma involving the lower limbs as well as the inguinal area.[3,4] Our case of scleroderma restricted to the inguinal area mimicking tinea cruris is unique. It is possible that the patient had tinea cruris at the time of diagnosis, which triggered localized scleroderma. Although the etiology of localized scleroderma is unknown, there are reports of morphea following systemic infection with measles, varicella, and *Borrelia burgdorferi*.[1] A study on *Borrelia* infection in patients with morphea suggested a specific role for the interaction between infectious agents and the immune system in the development of localized scleroderma.[5] However, it is difficult to confirm because of the absence of an initial biopsy. Tinea cruris in women, particularly those who are not obese, is uncommon. Moreover, there is

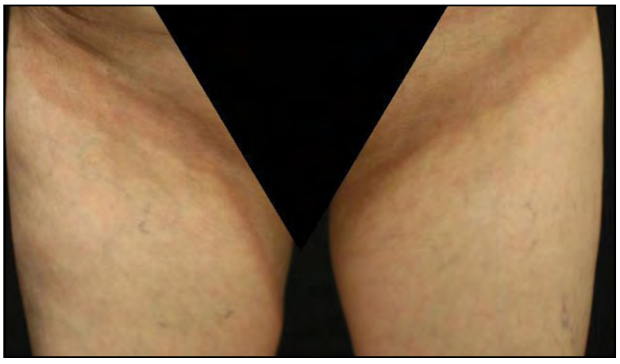

Figure 1. Painful, firm, brownish patches with erythematous borders in the inguinal area bilaterally.

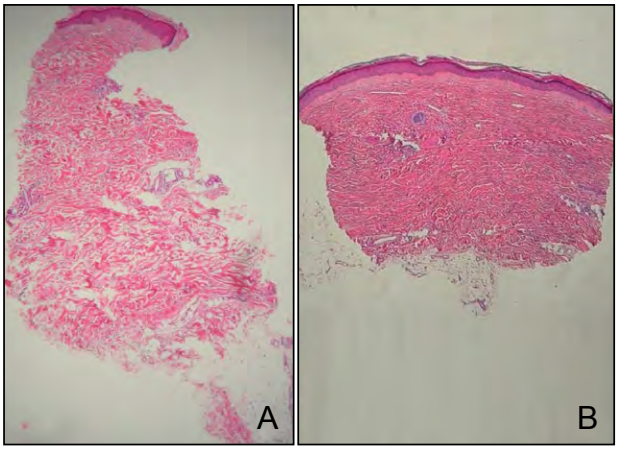

Figure 2. Histologic findings from the periphery of the lesion showed mild perivascular inflammatory infiltration in the dermis (A)(H&E, original magnification ×40). Histologic findings from the center of the lesion showed thickening of the dermis with increased collagen fibers and atrophic appendages (B)(H&E, original magnification ×40).

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no evidence that a cutaneous dermatophyte infection could affect collagen synthesis.

In summary, localized scleroderma should be added to the differential diagnosis of patients with long-standing inguinal skin lesions. We report an unusual manifestation of scleroderma.

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