Case Letter

Penile Pseudo-ainhum Associated With Lichen Sclerosus Et Atrophicus

To the Editor:

Pseudo-ainhum is a term used to describe the presence of constricting bands of the extremities due to various etiologies. Progression of the lesions causes irreversible damage and autoamputation of the affected digits. We report pseudo-ainhum of the penis in a 37-year-old Chinese man concurrent with lichen sclerosus et atrophicus (LSA). Although pseudo-ainhum has been associated with many dermatologic conditions, the presentation with LSA is unique. Combination therapy with tretinoin ointment and clobetasol propionate ointment showed some therapeutic efficacy.

A 37-year-old Chinese man presented with annular constriction and eversion of the foreskin of 6 months' duration. He first noticed whitish maculopapular eruptions on the dorsa of the foreskin and shaft of the penis with mild pruritus. These eruptions increased and became confluent plaques, which eroded and developed exudate and atrophy. A constriction ring occurred with a tight sensation when erect. Medical and family histories were noncontributory. Physical examination showed redundant prepuce, depigmented papules, plaques, and atrophy on the foreskin and shaft of the penis. A well-dermarcated, 2- to 3-mm wide constriction ring was observed around the shaft of the penis with a slightly sclerotic and atrophic surface (Figure 1). Routine laboratory tests for free triiodothyronine and free thyroxine showed no abnormalities. Serum antinuclear antibody; antithyroglobulin antibody; *Treponema pallidum* hemagglutination; rapid plasma reagin; anti–human immunodeficiency virus antibody; and cultures of gram-negative diplococcus, chlamydia, and mycoplasma were negative. Histology of the foreskin biopsy (Figure 2) demonstrated a thinned epidermis and liquefactive degeneration of basal cells. The upper dermal collagen was homogeneous and lightly stained. The bandlike cellular infiltration immediately beneath the altered papillary dermis was composed primarily of lymphocytes. The pathologic findings were consistent with LSA.

Figure 1. A well-demarcated constriction ring around the shaft of the penis.

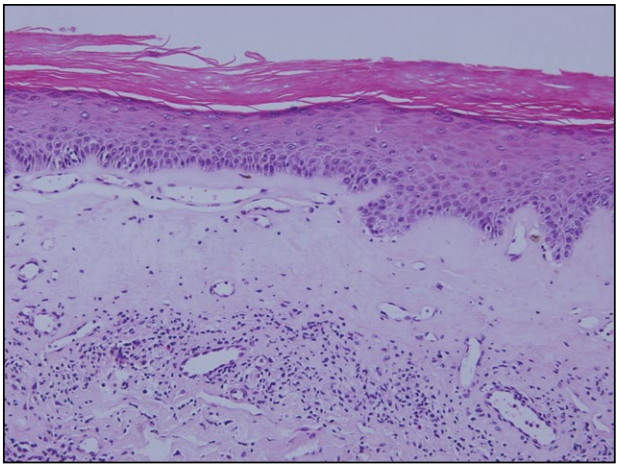

Figure 2. Histologic examination demonstrated a thinned epidermis, liquefactive degeneration of basal cells, homogeneous collagen of the upper dermis, and a bandlike lymphocytic infiltration immediately beneath the papillary dermis (H&E, original magnification ×40).

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The authors report no conflict of interest.

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The diagnosis of pseudo-ainhum and LSA was made. The patient refused any surgical interventions and was treated with tretinoin ointment and clobetasol propionate ointment for 2 weeks. Some improvement was achieved. The patient showed no exacerbation at a 3-year follow-up.

Constricting bands are divided into 4 categories: (1) ainhum; (2) congenital bands; (3) ainhumlike bands associated with other diseases; and (4) bands secondary to trauma.[1,2] Neumann[3] used the term *pseudo-ainhum* to distinguish the latter 3 entities from ainhum. Pseudo-ainhum begins as a circumferential crease or constricting band and frequently occurs at the volar digits fold. The constricting band gradually progresses in depth and width until encircling the digit. This phenomenon results in edema of the distal portion as if being constricted by a ligature. Pseudo-ainhum can be either severely painful or painless. The prognosis of the disease is unpredictable and may evolve over several months to years.[1] Our patient demonstrated the typical clinical features of pseudo-ainhum.

Several causes of pseudo-ainhum have been proposed. First, congenital bands are rare developmental anomalies and often occur in conjunction with other genetic abnormalities.[4] Second, bands occur secondary to trauma and mechanical injury, such as burns; frostbite; lacerations; or strangulation with hair, fibers, or jewelry.[5] Third, bands are associated with specific diseases, including hereditary entities such as pachyonychia congenita, mal de Meleda, and mutilating keratoderma, as well as nonhereditary entities such as diabetes mellitus, Raynaud disease, scleroderma, syringomyelia, ergot poisoning, spinal cord tumors, leprosy, and treponematosis. Our patient had none of these conditions. We attributed this case of pseudo-ainhum secondary to LSA.

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