CASE REPORT
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WOLF OR WORM?
A CASE OF LUPUS VULGARIS MASQUERADING AS TINEA CORPORIS

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Abstract

Lupus vulgaris is one of the common forms of cutaneous tuberculosis which may be acquired exogenously by direct inoculation or endogenously by hematogenous or lymphatic spread from an underlying focus. We report a case of lupus vulgaris presenting with giant annular plaque with central clearing which was misdiagnosed and treated as tinea corporis for many years. Clinical suspicion of lupus vulgaris should be kept in mind while dealing with diverse skin lesions not responding to routine treatments for long duration.

Key words: cutaneous tuberculosis, lupus vulgaris, giant annular plaque, Langhan's giant cells

Introduction

Lupus vulgaris (LV) is the most common form of cutaneous tuberculosis accounting for about 59- 74% of cutaneous tuberculosis cases in India.[1] Atypical presentations can result in delay in diagnosis and treatment of lupus vulgaris. We hereby report a case of longstanding uncommon giant annular form of lupus vulgaris that masqueraded as tinea corporis.

Case Report

A 47 year old male presented with a large scaly annular plaque on his right gluteal area for 15 years. Lesion was asymptomatic and steadily progressing in size. He was treated with various agents elsewhere with little response, predominantly antifungal agents, and even antibiotics and steroids, apparently with a clinical diagnosis of tinea corporis. On examination, there was a large well-defined, hyperpigmented scaly plaque of size 50 × 45 cm in annular pattern with relative central clearing on his right gluteal area extending to lower abdomen above and lateral aspect of right thigh below[Figure1].

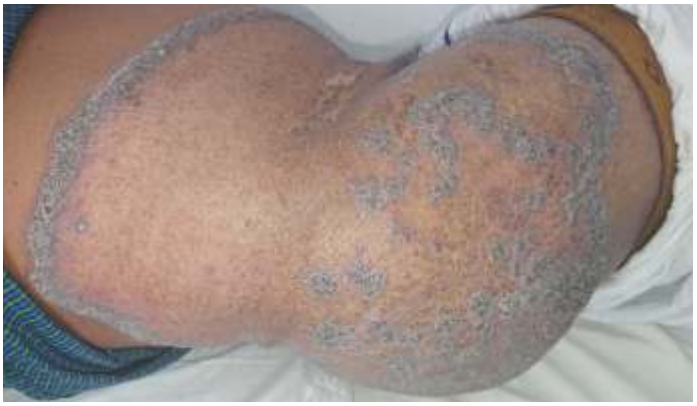

Figure 1 : Annular scaly plaque with relative central clearing on right gluteal area extending to lower abdomen above and lateral aspect of right thigh below

Potassium hydroxide mount from the skin surface scraping was negative for fungal hyphae. Histopathology from the plaque showed aggregates of epitheloid histiocytes cuffed by lymphocytes, foreign body and Langhan's giant cells in upper and mid-dermis suggestive of lupus vulgaris[Figure 2a and 2b].

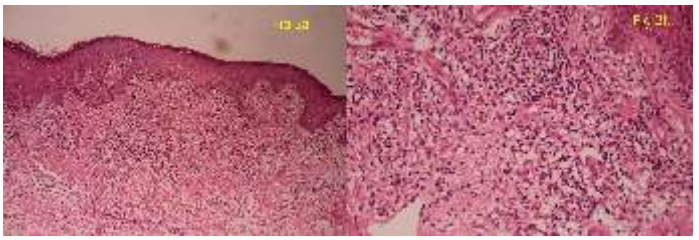

Figure 2 : Aggregates of epitheloid histiocytes cuffed by lymphocytes, foreign body and Langhan's giant cells in upper and mid-dermis (H&E 10X)2b: Tuberculoid granulomas with epitheloid histiocytes and Langhan's giant cells (H&E 40X)

Skin scraping and tissue culture for fungi and mycobacterium were sterile. There was no personal or family history of pulmonary tuberculosis. Chest x-ray was normal and mantoux test reading was 12 mm after 48 hours. Patient is currently on anti-tuberculous therapy (ATT) with daily fixed dose combination of isoniazid, rifampicin, pyrazinamide and ethambutol with significant clinical improvement after 3 months of ATT[Figure3].

Discussion

Erasmus Wilson coined the term "Lupus" in 1865 comparing the ulcerating and progressive nature of lesions to a "wolf". In addition to Mycobacterium tuberculosis, there are reports of LV occurring in association with M.bovis and M.xenopi.[2] LV can occur due to dissemination of infection from an endogenous focus in patients with moderate to high immunity by

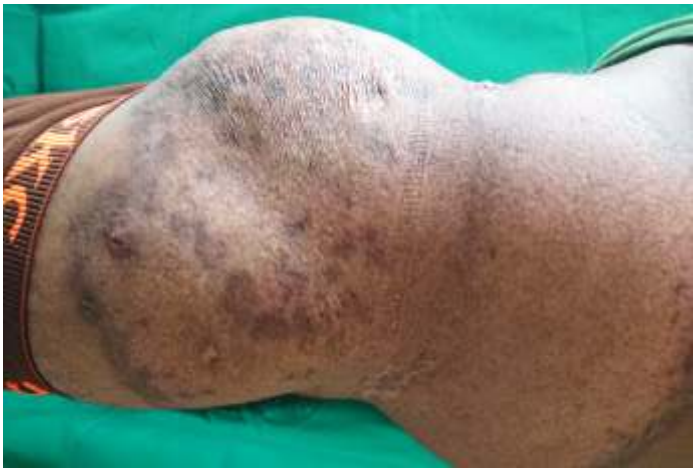

Figure 3 : Resolution of lesion seen after 3 months of ATT

hematogenous or lymphatic spread, or by direct contiguous spread of the infection from an underlying focus like lymph node, bone or joint, or exogenously by direct inoculation of the bacilli onto the skin. In European countries, majority of lesions have been reported on the head and neck areas, whereas in India, cutaneous TB more commonly affect buttocks,thighs and legs, which may be due to inoculation while walking barefooted or sitting on soil without clothes.[3]

LV usually presents as a solitary plaque which is formed by coalescence of multiple discrete microgranulomatous papules which are responsible for the "apple jelly" nodules on diascopy. It may often present with scarring and atrophy at one side and active erythematous lesions at the other end. Other common morphological variants include hypertrophic, ulcerative, and vegetative forms. Unusual variants described include frambesiform, eczematous, gangrenous, annular, sporotrichoid, lichenoid and necklace forms.[1,2] Clinical presentations resembling port wine stain, alopecia, lichen simplex chronicus, discoid lupus erythematosus, cellulitis etc. have been reported[4]

Our case is unique both by its size and morphology. The larger lesions of LV reported in literature include plaques of size 60 × 45 cm and 30 × 25 cm.[5] Our patient had a large plaque of size 50 × 45 cm extending across his abdomen, buttock and thigh. Heo et al. in 2010 reported a case of LV of 10 years duration over inguinal area and buttock where the lesion mimicked tinea cruris.[6] Another instance of LV over buttock resembling tinea corporis was reported by Rahman et al. in 2011; however the lesion had central atrophic area giving a clue regarding the true aetiology at the time of presentation.[7] The large plaque in our patient had active keratotic papules along the periphery with clear xerotic area in the centre with fine scaling mimicking classic plaque of tinea corporis.

When left untreated, LV can lead to disfiguring scarring, fibrosis, joint contractures, and mutilation and tissue destruction like nasal perforation, lymphoedema and cutaneous malignancies like squamous cell carcinoma, basal cell carcinoma, sarcoma or plasmacytoid lymphoma.[1]Various investigations like Mantoux test, quantiferon gold, PCR, culture in Lowenstein-Jensen or BACTEC medium etc. have relatively low positivity rate in LV.[2] Non-caseating granulomas consisting of epitheloid histiocytes and Langhans giant cells in upper dermis in histopathology examination is suggestive of LV. Treatment of choice is ATT which can be as per the WHO recommendations or the respective modifications of the guidelines in each country.

Our patient had lupus vulgaris which clinically mimicked tinea corporis resulting in a long delay in accurate diagnosis and management. It is imperative to keep the diagnosis of lupus vulgaris in mind while dealing with cases of diverse skin lesions which are not responding to routine treatments for long duration.

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