Hansen's Disease: A Great Mimicker

Case Report

Richa Rupla, Vivek Kumar Dey, Raghav Gupta
Department of Dermatology, People's College of Medical Sciences & Research Centre, Bhanpur, Bhopal-462037

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ABSTRACT

Leprosy is a dermato-neurological chronic infection caused by Mycobacterium leprae, an acid fast intracellular bacilli, not cultivated in vitro. Leprosy predominantly affects the skin and peripheral nerves. The different manifestations of leprosy are known since time immemorial. But even today when we are trying hard to eradicate leprosy, newer forms of presentation continue to crop in the form of laryngeal dyspnoea, bullae with hematoma, xanthoma like presentation etc. Granuloma annulare (GA) is typically a benign, self-limited cutaneous disorder classically presenting as annular groups of skin-colored to erythematous papules and plaques without epidermal change localized to the dorsal hands and or feet.

A 50-years-old hypertensive, diabetic female patient presented with suddenly appearing multiple asymptomatic red raised lesions limited to bilateral upper limbs since 2 months. On examination multiple papules and plaques of size varying from 2cm-5cm in diameter were present. The individual lesions were round shaped, flat topped, non-scaly, indurated plaques with central clearing and hyperpigmentation. There was no loss of sensation (touch, pain), thickened nerves or muscle weakness. No signs of any atrophy and hair loss over plaques. A biopsy was taken for the confirmation of diagnosis and it was suggestive of borderline lepromatous leprosy. Skin and nerves affected by leprosy is quite common. However, it is a great mimic of many conditions. In areas endemic for leprosy it is imperative to keep in mind the diverse presentations of leprosy. Leprosy should be actively ruled out in all suspected cases so as to prevent misdiagnosis.

KEY WORDS: Alopecia, Diabetes mellitus, Granuloma annulare, Lepromatous leprosy

INTRODUCTION:

Leprosy is a dermato-neurological chronic infection caused by Mycobacterium leprae, acid fast intracellular bacilli, and not cultivated in vitro[1]. Leprosy predominantly affects the skin and peripheral nerves since Mycobacterium leprae prefers cooler temperature of <98.6 ℉[2]. The different manifestations of leprosy are known since time immemorial. Hypopigmented or erythematous patches, localized paraesthesia, anaesthesia, shooting pains, blisters of hands and feet, motor weakness, nasal stuffiness, epistaxis, synovial swelling of wrist, pedal edema, painless nodule, diminished or excessive sweating have been reported. But even today when we are trying hard to eradicate leprosy, newer forms of presentation bullae with hematoma, xanthoma like presentation etc. Granuloma annulare (GA) is typically a benign[3],continue to crop in the form of laryngeal dyspnoea, self-limited cutaneous disorder classically presenting as annular groups of skin-colored to erythematous papules and plaques without epidermal change localized to the dorsal hands and/or feet. In addition to the localized form, there are variants including generalized (generalized annular GA, disseminated papular GA, and atypical generalized GA), subcutaneous, and perforating GA, providing for a wide spectrum of clinical lesions.

We also came across in a borderline lepromatous leprosy patient presenting with lesions resembling GA. Because of rarity of atypical presentation like this we report a case of borderline lepromatous leprosy with granulomaannulare likepresentation.

Corresponding Author:
Dr. Raghav Gupta
Resident, Department of Dermatology,
People's College of Medical Sciences &
Research Centre, Bhopal - 462037
Phone No.: +91 9165658540
E-mail: rockingraghav04@gmail.com

CASE REPORT:

A 50-years-old hypertensive, diabetic female patient presented with suddenly appearing multiple asymptomatic red raised lesions limited to bilateral upper limb since 2 months, with no contact history with a leprosy patient. On examination multiple papules and plaques of size varying from 2cm-5cm in diameter were present (Figure 1). The individual lesions were round shaped, flat topped,

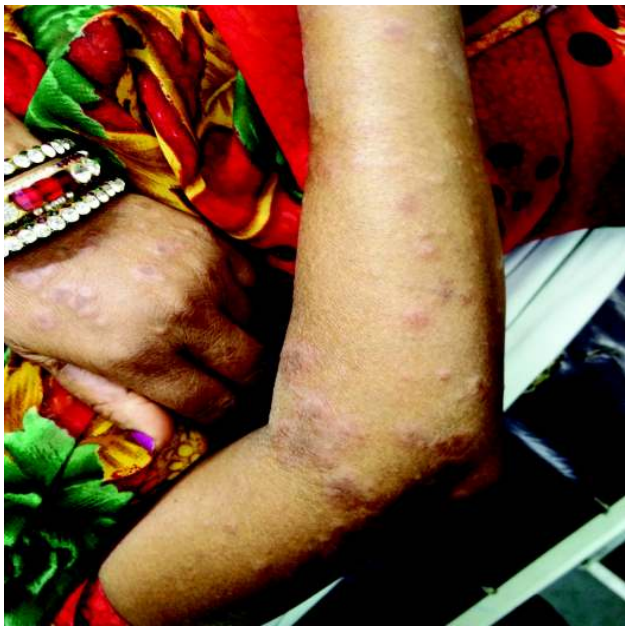

Figure1: Multiple erythematous annular plaques over Bilateral Upper limb.

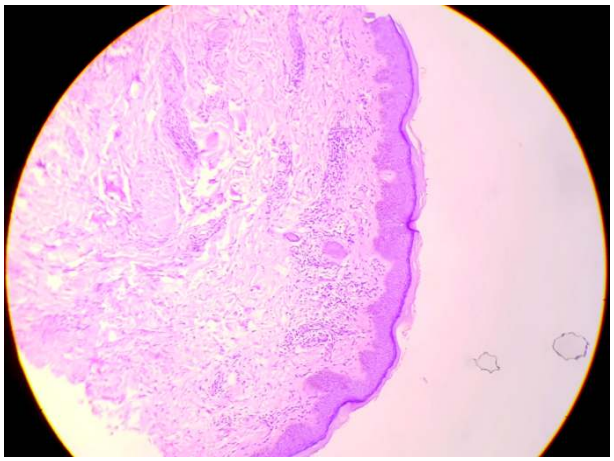

Figure 2:Histopathology showing thin and flat epidermis, narrow grenz zone, diffuse and nodular granulomatous infiltrate centred around the neurovascular bundles[H&E, X400].

non-scaly, indurated plaques with central clearing and hyperpigmentation. There was no loss of sensation (touch, pain), thickened nerves or muscle weakness.No signs of any atrophy and hair loss over plaques. A presumptive diagnosis of granuloma annulare associated with diabetes was made and empirical therapy of topical steroids (clobetasol propionate) was started. A biopsy was taken for the confirmation of diagnosis was sent. There was no improvement after 7 days of topical therapy. The histopathology showed thin and flat epidermis, narrow grenz zone, diffuse and nodular granulomatous infiltrate centred around the neurovascular bundles

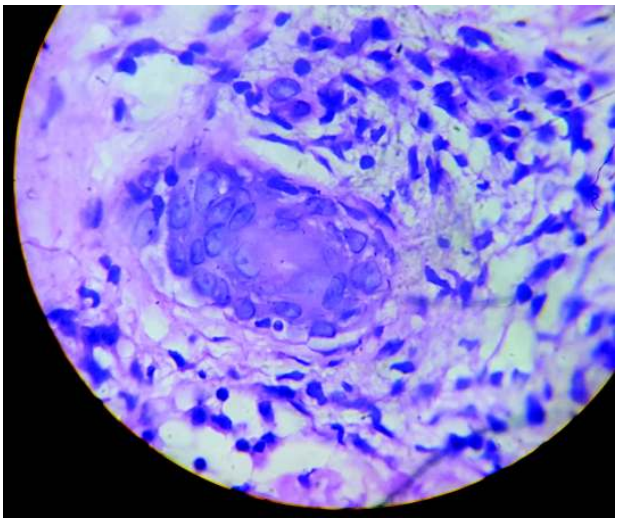

Figure 3: The curvilinear granulomas were composed of pale staining foamy histiocytosis and lymphocytes.[H&E, X1000].

(Figure 2). The curvilinear granulomas were composed of pale staining foamy histiocytosis and lymphocytes, suggestive of borderline lepromatous leprosy (Figure 3). A Slit Skin Smear was done which was negative for Acid Fast Bacilli. Patient was started on Multibacillary Multi Drug Therapy and after one month of therapy there was 50% decrease in lesions.

DISCUSSION:

Leprosy can be diagnosed fairly accurately on the basis of its three cardinal signs. However, as it is a spectral disease, its range of clinical presentations is localized lepromatous disease presenting with single nodule orlocalized area of papules and nodules, histoid leprosy, lucio leprosy and spontaneous ulcerations seen in long-standing untreated lepromatous leprosy. We present this case because of atypicality of the presentation of lesions. Granuloma annulare-like presentation has not been reported earlier in literature in Hansen's disease.

Our patient presented with atypical morphology of lesions mimicking granuloma annulare. Short duration of symptoms; absence of sensory symptoms, nerve enlargement, and otherwide. The uncommon disease presentations include signs of leprosy like Madrosis, leonine facies and localization of disease to Bilateral upper limb delayed the diagnosis of leprosy. Other atypical manifestations reported previously include verrucous lepromatous leprosy, leprosy presenting initially with myositis followed by skin lesions and lymphadenopathy and leprosy presenting as erythema multiforme like Type 2 reaction.[3, 4, 5] Ankad BS et al have reported a case of pureneural leprosy involving isolated cutaneous radial

nerve as multiple abscesses along the course of nerve.[6] There are also few case reports of leprosy mimicking common rheumatologic entities.[7] Histopathology was central in establishing the correct diagnosis. Thus all suspected cases, especially in endemic regions, should be subjected to histopathologic examination. Further various clinical presentations of leprosy, common as well as uncommon, must be kept in mind to avoid untoward delay in diagnosis.

CONCLUSION

Skin and nerves affected by leprosy is quite common. However, it is a great mimic of many conditions. In areas endemic for leprosy it is imperative to keep in mind the diverse presentations of leprosy. Leprosy should be actively ruled out in all suspected cases so as to prevent misdiagnosis.

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