Original Article

CASE REPORT: LAZARINE LEPROSY

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Abstract

Leprosy is a chronic granulomatous disease with a wide spectrum of characteristics. It is caused by Mycobacterium leprae and is still endemic in many parts of the world. Transmission occurs via inhalation of the bacilli. It is considered to be the most common cause of non-traumatic peripheral neuropathy due to its predilection for Schwann cell. Lazarine leprosy is the ulcerating type 1 reaction.

Introduction

Leprosy is a chronic granulomatous disease caused by Mycobacterium leprae with a wide spectrum of clinical, histopathological and immunological features (1). Leprosy reactions are of two types, type 1 and type 2. Type 1 reaction is a delayed type of hypersensitivity reaction seen in borderline forms of leprosy in which pre-existing lesions become erythematous, edematous and rarely ulcerate. Type 2 reaction, also known as erythema nodosum leprosum, is characterized by the presence of evanescent crops of nodules associated with constitutional symptoms (2). Ulcerating type 1 reaction is known as Lazarine leprosy. Ulcerations are more common in BT pole (3).

Case report

A 32-year-old female presented to our OPD with multiple red raised lesions with ulceration present over face, bilateral upper extremities and back since 20 days associated with burning sensation with past history of few light colored patches with loss of sensation for 6-8 months. She has been taking MB-MDT irregularly for 6 months. History of fever, tingling numbness over hands and feet was present. No history of epistaxis and redness of the eyes present.

General examination was within normal limits. The body mass index was 23.3 kg/m2.

On cutaneous examination, multiple ulcerations with well-defined margins, erythematous edges, granulation tissue at the base were present on oedematous and erythematous-to-hyperpigmented plaques on left arm, back of trunk, forehead and left ear. There were sensory impairments with loss of hair over the lesions.

No motor abnormality was detected.

On peripheral nerve examination, bilateral ulnar nerves were thickened and non-tender.

Slit skin smear from bilateral ear lobule showed bacteriological index (BI) of 2+. Wound swab showed no growth.

Histopathological examination from periphery of ulcerated plaque showed multiple epithelioid granulomas, lymphocytes, Langerhans giant cells, histiocytes in the dermis.

Other routine investigations were within normal limit.

On the basis of clinicopathological correlation, a diagnosis of Borderline Tuberculoid Leprosy in severe type 1 reaction (Lazarine leprosy) was made. The patient responded to treatment with tapering doses of tablet Prednisolone 40mg taken every morning after breakfast, over 4 weeks. The lesions healed with hypopigmentation and atrophic scarring. She was counselled for regular treatment with MD-MDT.

Figures

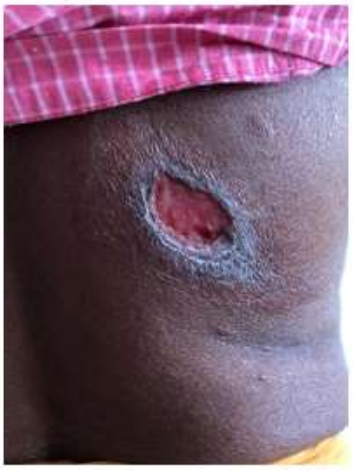

Figure 1

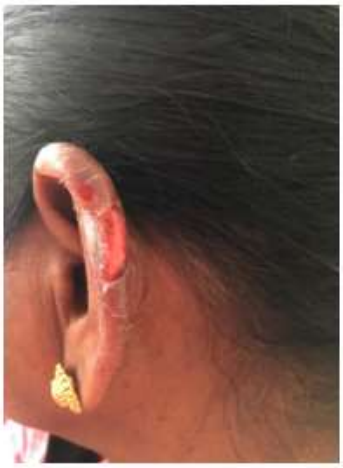

Figure 2

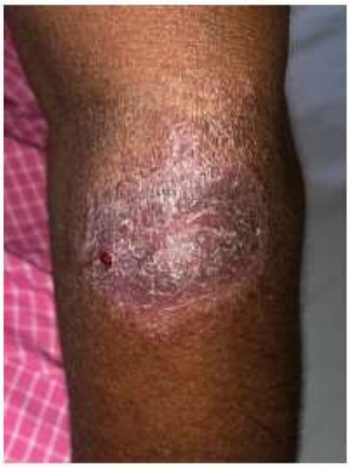

Figure 3

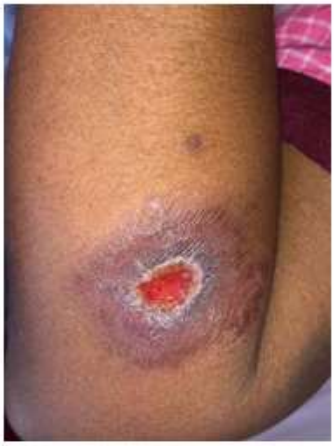

Figure 4

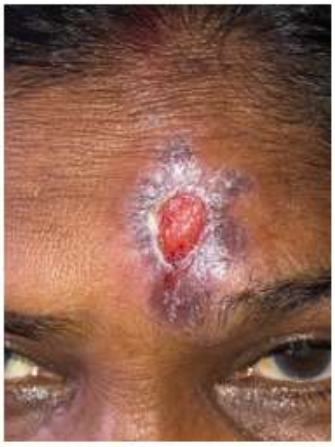

Figure 5

Figure 1: Well defined ulcer over the back.
Figure 2: Ulcer over the ear
Figure 3: Well defined ulcer over the left arm
Figure 4: Ulcer present over the plaque over right arm
Figure 5: Ulcerated plaque present over the forehead

Discussion

Leprosy is a chronic granulomatous infection caused by slow growing; gram-positive, acid-fast bacilli called Mycobacterium leprae. It affects the nerves, skin, eyes and nasal mucosa (1). M. leprae's has an affinity for peripheral nerve cells, preferentially attacking Schwann cells (SCs) which causes nerve demyelination and loss of axonal conductance, presenting clinically as numbness (4). There are 2 types of reactions in leprosy, type 1 also known as reversal reaction and type 2 which is also known as erythema nodusum leprosum. Type 1 reaction is a delayed type of hypersensitivity reaction in which pre-existing lesions become erythematous, oedematous and rarely ulcerate. Lazarine leprosy is a rare, severe, widespread ulcerative phenomenon seen in type 1 reaction. It is mostly seen in borderline forms of leprosy (2). Ulcerations in leprosy can occur during reactions (Lazarine leprosy) or secondary to neuropathies. Two types of ulcerations are seen in Hansen's diseases - **tropic ulcers** (due to sensory impairment) and **leprous ulcers** (due to alteration in immunity and bacillary load as a result of irregular treatment). Delayed diagnosis and treatment can lead to progression of the disease to advanced stage with irreversible disabilities (5)

This case was initially a borderline lepromatous leprosy, after taking MB MDT irregularly for 6 months, went into severe type 1 reaction with ulcerations. Histopathology was correlating with reversal reaction as there were granulomas composed of epithelioid histiocytes, lymphocytes, multiple foreign body and Langerhans giant cells. The patient responded to oral prednisolone and MB MDT. The ulcer healed with hypopigmentation and atrophic scarring.

In country like India, where the case load of Hansen's disease is still high, the varied manifestations of the disease should be recognised for early diagnosis and prompt treatment, to reduce the morbidity.

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