

SERPENTINE LESION ON THE LEG; ANOTHER FACE OF HANSEN'S DISEASE

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ABSTRACT

Leprosy has been labelled as a disease with many faces since the time immemorial. This is mainly because of wide range of its clinical presentations depending upon the immune status of the individual. Leprosy is a disease of declining global endemicity, but is still an important healthcare problem in India.

Here, we report a case of leprosy with atypical presentation, which was later diagnosed as leprosy when investigated.

BACKGROUND

Leprosy is a chronic mycobacterial granulomatous disease caused by mycobacterium leprae affecting peripheral nerves, skin and certain other tissues.¹

Depending upon the immune status of the individual, patients suffering from leprosy exhibit a wide spectrum of presentations ranging from tuberculoid to lepromatous type and immunologically unstable borderline forms in between.^{2,3}

Leprosy can be diagnosed fairly accurately on the basis of three signs, which include hypoesthesia, skin lesions and thickened nerves.⁴

The uncommon disease presentations include localised lepromatous disease presenting with single nodule or localised area of papules and nodules, histoid leprosy, lucio leprosy and spontaneous ulcerations in longstanding untreated lepromatous leprosy. Uncommon presentations are hard to diagnose clinically. Histopathological examination becomes necessary in such circumstances for confirmatory diagnosis.⁵

We here present a case of Hansen's disease with an unusual clinical presentation where histopathology was the key in establishing correct diagnosis.

PRESENTATION OF CASE

A 46-year-old male patient sought dermatology consultation for reddish raised scaly lesion over the left leg, which he first noted four months ago.

Patient was apparently normal four months ago when he first noticed an asymptomatic reddish scaly lesion on the

medial aspect of lower one third of the left leg, which gradually extended to involve the medial aspect of foot. There were no similar skin lesions on the other parts of the body.

There was no history of pedal oedema, spontaneous blistering, ulceration and slipping of footwear or testicular pain.

CLINICAL DIAGNOSIS

General examination of the patient was normal. Dermatological examination revealed a solitary well-defined erythematous dry scaly patch with scanty hair and decreased sweating extending in a serpentine pattern into the medial aspect of left foot (Figure 1). Neurological examination revealed thickened left posterior tibial nerve. Touch, pain and temperature and sensation were partially impaired on the medial aspect of left foot. No other skin lesions were seen. Motor system examination was normal. Routine investigations like haemogram, liver and renal function tests were within normal limits.



Figure 1. Erythematous Serpentine Scaly Patch on the Lower Third of Right Leg Extending into Medial Aspect of Foot

Slit-skin smears from the erythematous patch and from normal skin were both negative.

A skin biopsy (figure 2) from the erythematous scaly patch showed structure of the skin with thinned out epidermis. The dermis showed perineural inflammatory infiltrate composed of lymphocytes, foam cells and epithelioid cells. Few ill-defined granulomas were observed. Lepra stain did not reveal acid-fast bacilli. The subcutis appeared unremarkable.

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Figure 2. Structure of Skin Showing Thinned Out Epidermis, Dermis Showing Perineural Inflammatory Infiltrate and Few Ill-Defined Granulomas

A final diagnosis of borderline tuberculoid leprosy was established.

PATHALOGICAL DISCUSSION

Leprosy is a great mimic and can have varied clinical presentations. The differential diagnosis is so wide that one has to exclude wide variety of dermatological diseases before labelling it to be leprosy as stigma is still associated with it.⁶

A literature search revealed a case report by Liegeon Al et al⁷ wherein they describe a case of linear tuberculoid leprosy along the lines of Blaschko.

In another case, report of isolated tuberculoid leprosy of antebrachial medial cutaneous nerve patient presented with a series of painful nodular lesions in a linear fashion.⁸

BS Ankad et al⁹ reported a case of pure neural leprosy presenting with multiple abscesses along the course of the nerve.

In another case report, persistent serpentine supravenuous hyperpigmented eruptions were seen in a lepromatous leprosy patient subsequent to starting modified multidrug therapy-multibacillary regimen in the form of minocycline and ofloxacin.¹⁰

There have been various case reports of pure neuritic leprosy presenting with skin lesions in a linear pattern. However, our case report is a first of its kind where borderline tuberculoid leprosy presented with serpentine

skin lesion. There have been no such cases reported previously.

Leprosy is a great masquerades of many conditions. Hence, in endemic areas for leprosy, it is imperative to keep in mind the diverse presentations of leprosy. Leprosy should always be ruled out in all suspected cases so as to prevent misdiagnosis.

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