

Histoid leprosy: an uncommon variant of lepromatous leprosy

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Abstract

Histoid leprosy is an uncommon variant of lepromatous leprosy with characteristic clinical, immunologic and bacteriologic finding. Histoid leprosy can be eliminated by early diagnosis and complete treatment.

Key words: Histoid leprosy, lepromatous leprosy, bacteriological finding

Introduction

Histoid Leprosy is an uncommon variant of lepromatous leprosy with unique clinical and histopathological characteristics. It frequently follows incomplete chemotherapy or acquired drug resistance, leading to bacterial relapse.

Case Report

We were reporting five cases of histoid leprosy from Department of Pathology, College of Medical Sciences, Bharatpur, Nepal. (Table No.1) We received total 120 biopsies of Leprosy during five years from January 2006 to September 2010 out of which seven cases were clinically suspected as Histoid Leprosy and five cases were finally diagnosed as Histoid Leprosy.

Table No.1

Cases of histoid leprosy in a tabulated form

S.N.	Age/ Sex	Clinical Presentation	BI
1.	26/F	Leonine face, multiple shiny histoid nodules in bilateral extremities, bilateral radial & ulnar nerves thickened.	5
2.	47/F	Multiple erythematous papulo-nodular lesions on back and lower extremities for 2-3 months. Bilateral ulnar nerves palpable.	5
3.	35/M	Multiple nodular infiltrated plaque lesions over trunk and pinna. Bilateral ulnar nerves thickened.	5
4.	40/M	Erythematous macular patched and papulo-nodular eruption in left arm and all over body. Palpable right posterior auricular and ulnar nerves	5
5.	45/M	Multiple nodular hyperkeratotic plaques lesion on upper and lower extremities. Ulnar and radial nerves are palpable.	5

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Review of Literature

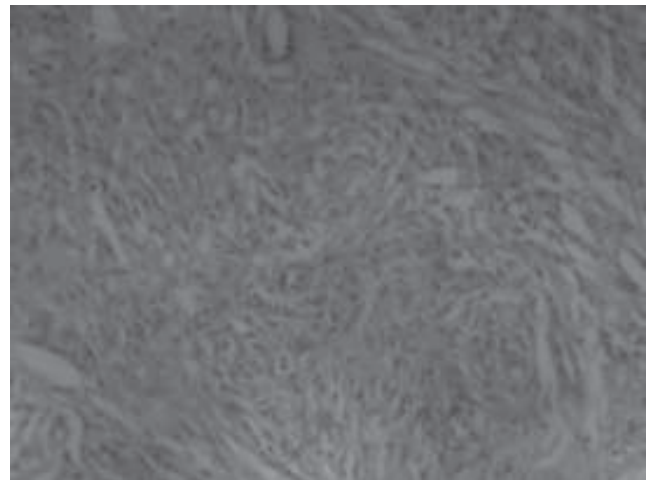
Leprosy is a chronic granulomatous disease caused by *Mycobacterium leprae* affecting the cooler parts of the body: skin, upper respiratory tract, anterior segment of the eye, superficial portion of peripheral nerves and testes.¹ Nepal eliminated leprosy as a public health problem during the last quarter of 2009; (elimination is defined as <1 case/10 000 population). The new cases were detected in 2009 in Nepal 2445 and 23 relapse cases are also detected. This account, about 2.9% relapse cases worldwide.² Histoid leprosy was first described in 1963 by Wade HW et al.³ It has been found as manifestation in patient after long-term Dapsone monotherapy, irregular or inadequate therapy, however, there are also reports of disease developing as relapse after successful treatment, even appearing de novo without a prior history of any anti leprosy treatment. The pathogenesis of this rare and unusual variant of leprosy still remains unresolved.⁴

Clinically the histoid lesions commonly appear as smooth, shiny, hemispherical, dome-shaped, non-tender, soft to firm nodules which may be superficial, subcutaneous or fixed deeply under the skin and plaques or pads appearing on otherwise normal-looking skin.⁵ There is male preponderance and the average age of the affected is between 21 and 40 years.⁶

Histopathologically the epidermis shows grenz zone and the dermis shows sheets of round to spindle-shaped histiocytes. Within these histiocytes, plenty of acid fast bacilli can be seen. Histoid Leprosy shows highest loads of bacilli, the Bacillary index (BI) is frequently 6.⁷ Slit skin smear (SSS) from histoid lesions also shows abundant acid fast bacilli occurring in

clusters, singly or tightly packed in macrophages.⁸ Immunocytochemical methods for demonstrating mycobacterial antigens have a limited role. The most frequently used is polyclonal anti-BCG antibody.⁹

Histoid leprosy clinically resemble dermatofibroma, xanthoma, neurofibroma, reticulohistiocytosis and cutaneous metastasis. Each of them can be differentiated from Histoid leprosy on the basis of the characteristics histopathology, absence of mycobacteria on slit smear and absence of nerve thickening.¹⁰



Slide Photo 1. Histoid leprosy hematoxylin and eosin stain (40Xx10X magnification)



Slide Photo 2. Mycobacterium bacilli fite Ferraco stain (100Xx10X magnification oil immersion)

Discussion

The Histoid leprosy incidence among Hansen patients is 2.79 to 3.6%.¹¹ In our five years study, the incidence of histoid leprosy among the registered patient was 4.23 percent. Histoid leprosy, its clinical presentation and pathogenesis, still remains a riddle to the leprosy worker. SSS and histopathological examination of histoid leprosy are mandatory for final confirmation of diagnosis.^{8,12}

Conclusion

Since, the bacillary load is very high in case of Histoid leprosy patient, they can form potential reservoir of the infection in the community especially in the post leprosy elimination era. Although millions of patients with classical leprosy have been diagnosed and treated, a rare variant of the diseases i.e. Histoid Leprosy still posed a challenge to diagnose even to trained eyes. Histoid Leprosy is one such form of disease with unique clinical and histopathological features which can be eliminated by early diagnosis and proper complete treatment.

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