



## SINGLE PLAQUE LEPROMATOUS LEPROSY- A RARE CASE REPORT

## Dermatology

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## ABSTRACT

Lepromatous leprosy usually presents with multiple, ill-defined plaques and nodules with diffuse infiltration of the skin. Here we report a 27-year-old female with a solitary, anaesthetic plaque over the face, diagnosed with lepromatous leprosy.

## KEYWORDS

Lepromatous leprosy, single plaque, uncommon

## INTRODUCTION:

Leprosy, a chronic infectious disease has a varied spectrum of presentations ranging from tuberculoid to lepromatous based on host immunity and bacterial load<sup>1</sup>. Lepromatous leprosy is part of the farther end of the spectrum with low immunity and high bacterial load and clinically presents with multiple skin lesions and prominent peripheral nerve involvement. Single plaque lepromatous leprosy with no nerve involvement as reported here, is very unusual<sup>2</sup>.

Case report: A 27-year-old female patient presented to the skin OPD with complaints of a red, raised lesion over her forehead for the past 2 years. The lesion was asymptomatic. No history of constitutional symptoms. On examination, a single hypopigmented well-defined plaque with an erythematous border and mild scaling was seen on the left side of the forehead. There was decreased sensation over the patch. No evidence of any other lesions elsewhere in the body. No peripheral nerve involvement.

Based on the above said findings, a clinical diagnosis of tuberculoid leprosy was made and a biopsy was done. Histopathology revealed epidermal atrophy with dense dermal inflammatory infiltrate containing foam cells, histiocytes and lymphocytes suggesting a picture of lepromatous leprosy.

## DISCUSSION:

Lepromatous leprosy belongs to the highly infectious end of the leprosy spectrum with low immunity and high bacillary load. Clinically, it presents with multiple, symmetrical papules, plaques and nodules with multiple nerve involvement and variable motor and sensory abnormalities<sup>3</sup>. The sensory involvement is in the form of glove and stocking anaesthesia. There is diffuse infiltration of the skin<sup>4</sup>, especially over the face resulting in the classical leonine facies. The nerve involvement is prominent with multiple nerves getting involved resulting in motor paralysis. Lepromatous leprosy is prone for type two lepra reaction.

Histopathology<sup>5</sup> will show epidermal atrophy with a subepidermal clear zone (Grenz zone). The dermis will exhibit dense inflammatory cells consisting of foam cells, macrophages and few lymphocytes. The macrophages will show multiple lepra bacilli in the cytoplasm on Fite-Faraco stain and these cells are known as Virchow's cells.

Slit skin smear will show abundance of acid fast lepra bacilli<sup>4</sup>. Treatment is the standard multibacillary-multidrug therapy given for a period of 12 months.

## CONCLUSION

Our case though initially diagnosed clinically as tuberculoid leprosy,

was histopathologically confirmed to be lepromatous leprosy. Lepromatous leprosy presenting with a single plaque is a relatively rare and confusing entity and relevant investigations will have to be done to confirm the spectrum of the disease.

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## LEGENDS TO FIGURES

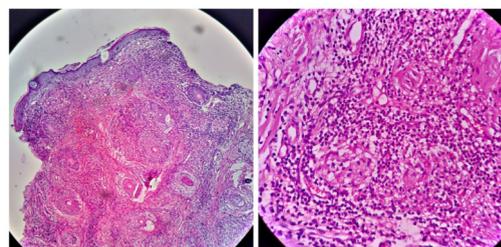
Figure 1: Clinical image showing a solitary hypopigmented plaque with an erythematous border on the forehead.

Figure 2: Epidermal atrophy with dense inflammatory infiltrate consisting of foam cells, histiocytes and lymphocytes.

Figure 1



Figure 2



## REFERENCES:

- George M, Rajan U, George S, Pakran J, Thomas S. Sub-polar lepromatous leprosy localized to the face. *Dermatology online journal*. 2010 Sep 1;16(9).
- Yoder LJ, Jacobson RR, Job CK. A single skin lesion—an unusual presentation of lepromatous leprosy. *Int J Lepr*. 1985;53:554-8.
- Maejima H, Ishii N, Aki R, Katsuoka K, Obata S. Borderline lepromatous leprosy presenting as a single cutaneous plaque. *Acta dermato-venereologica*. 2009 Mar

- 1;89(2):206-7.
4. Job CK, Kahkonen ME, Jacobson RR, Hastings RC. Single lesion subpolar lepromatous leprosy and its possible mode of origin. *International journal of leprosy and other mycobacterial diseases: official organ of the International Leprosy Association*. 1989 Mar;57(1):12-9.
  5. Massone C, Belachew WA, Schettini A. Histopathology of the lepromatous skin biopsy. *Clinics in dermatology*. 2015 Jan 1;33(1):38-45.