

## Sporotrichoid pattern of nerve abscesses in borderline tuberculoid leprosy: A Case Report (sporotrichoid like abscesses in leprosy)

G Garg<sup>1</sup>, GP Thami<sup>2</sup>, H Mohan<sup>3</sup>

Received : 25.10.2013 Revised : 26.10.2014 Accepted : 30.10.2014

Linear distribution of multiple subcutaneous nodules or ulcers along the course of lymphatics, classically seen in lymphocutaneous sporotrichosis, has been observed in a number of other infections like localized cutaneous leishmaniasis, cutaneous tuberculoid and non tuberculoid mycobacterial infections, *Pasteurella tularensis*, *Scopulariopsis blochi*, *Nocardia brasiliensis*, yaws and syphilis. A case of borderline tuberculoid leprosy with multiple cutaneous nodules corresponding to resolving nerve abscesses in a sporotrichoid pattern is being reported.

**Key words:** Linear ulcerations, abscesses, borderline leprosy, sporotrichoid pattern

### Introduction

Linear distribution of multiple subcutaneous nodules or ulcers along the course of lymphatics, classically seen in lymphocutaneous sporotrichosis, has been observed in a number of other infections like localized cutaneous leishmaniasis, cutaneous tuberculoid and non tuberculoid mycobacterial infections, *Pasteurella tularensis*, *Scopulariopsis blochi*, *Nocardia brasiliensis*, yaws and syphilis (Ramesh et al 2000).

Rarely, a similar sporotrichosis like distribution of linear subcutaneous nodules and ulcerations may be the presentation of *M leprae* induced leprosy neuritis / nerve abscesses involving a superficial

nerve twig towards the tuberculoid pole of leprosy (Ramesh et al 1998, Mehta et al 1995, Ghorpade 2006). Although, these neural lesions resemble the lesions of sporotrichosis morphologically, but they may be differentiated clinically, histopathologically and by SSS/ KOH examination. A case of borderline tuberculoid leprosy with multiple cutaneous nodules corresponding to resolving nerve abscesses in a sporotrichoid pattern is being reported.

### Case Report

A 25-year-old, male, presented in our clinic with multiple nodules and ulcerations over left forearm for last two months. Initially, illness

<sup>1</sup> G Garg, MD, Assistant Professor

<sup>2</sup> GP Thami, MD, Professor

<sup>3</sup> H Mohan, MD, Professor

Department of Dermatology, Government Medical College & Hospital, Sector-32, Chandigarh, India-160030

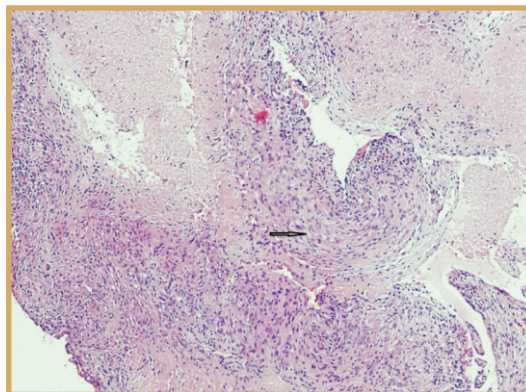
Correspondence to: G Garg E-mail: [drgeetarg704@gmail.com](mailto:drgeetarg704@gmail.com)

started with single, slowly progressing, hypopigmented and hypoanaesthetic patch, for which he was started WHO MDT PB (paucibacillary) for BT leprosy two months prior to the development of these lesions. In due course of time, some of the nodules got ulcerated and he stopped treatment believing that his disease has worsened.

On cutaneous examination, he had multiple subcutaneous nodules along flexor as well as extensor aspects of left forearm in an apparently linear distribution extending along the course of superficial cutaneous nerves which were palpably thickened, non tender, and cord like structures. The ulnar nerve and radial cutaneous nerve on left side were significantly thickened. (Fig 1) The examination of rest of the nerves and sensations



**Fig 1 : Showing distribution of cutaneous ulcerations along thickened cutaneous superficial nerves.**



**Fig 2 : H&E staining (40x) Histopathology showing granulomas surrounding cutaneous nerves. (Arrow indicates site of damaged nerve and granuloma surrounding nerve)**

were normal. The routine investigations including complete blood count, renal and liver function tests, urine analysis, chest x-ray (PA new) were all within normal limits. Slit skin smears for lepra bacilli were negative. Skin biopsy for histopathological examination showed presence of periaxonal and perineural epithelioid cell granulomas with necrosis, surrounded by moderate lymphomononuclear cell infiltrate. (Fig 2) Stain for lepra bacillus was negative. The diagnosis of BT leprosy with Type I reaction was confirmed and he was re-started with WHO MDT-PB along with prednisolone 30mg orally daily. As the lesion started resolving, the dose of prednisolone was tapered by 10 mg/d every 15 days. He was released from treatment after 6 months and is under follow up.

### Discussion

Leprosy is a chronic granulomatous disorder affecting single or multiple nerves along with cutaneous lesions. Leprous neuritis presenting with multiple ulcers or nodules along the involved cutaneous nerves in a linear distribution has been described as sporotrichoid pattern akin to

sporotrichosis (Ramesh et al 2000). This pattern of leprosy was reported in the literature initially by Guha et al (1987). He described a patient of borderline tuberculoid leprosy with multiple nerve abscesses mimicking sporotrichosis (Guha et al 1987). Later on, in 1995, Mehta et al, described another case of borderline leprosy masquerading as lymphocutaneous sporotrichosis.

Ramesh et al (1998) reported a patient with tuberculoid leprosy having multiple nodular swellings over right forearm and two another cases of borderline tuberculoid leprosy with multiple cutaneous abscesses which ruptured on skin surface during course of upgrading reactions (Ramesh et al 1998, Ramesh et al 2000). In all the five cases described above as well as the present case, the distribution of linear ulcerations and abscesses are along the involved thickened cutaneous superficial nerves occurring simultaneously in any direction irrespective of draining areas, as the main brunt of disease towards the tuberculoid spectrum of disease is borne by superficial cutaneous nerves mainly of forearms because of its predilection for the most superficial and cooler sites in a temperature related neuropathy (Ramesh et al 2000). Thus, the commonly involved nerves include medial

cutaneous nerve of forearm, posterior cutaneous nerve of forearm and branch of radial nerve and antibrachial nerve. The paucity of literature on such rare presentation encouraged us to report this entity. Thus the distribution of cutaneous lesions of leprosy along the course of lymphatics akin to lesions of sporotrichosis justifies its inclusion in the list of dermatoses presenting in 'sporotrichoid like', an entity, which is already coined in the literature.

### References

1. Ghorpade A (2006). Multiple superficial Sporotrichoid nerve abscesses with a hyperpigmented lesion in a tuberculoid leprosy patient: A rare & unusual presentation. *J Eur Acad Dermatol.* **20**:357-358.
2. Guha PK, Pandey SS and Singh G (1987). Sporotrichoid nerve abscess. *Ind J Leprol.* **59**: 469-471.
3. Mehta SD, Handa V, Dawn G et al (1995). Borderline leprosy masquarding as lymphocutaneous Sporotrichosis. *Lepr Rev.* **66**: 259-261.
4. Ramesh V, Kulkarni SB, Misra RS et al (1998). Sporotrichoid tuberculoid leprosy. *Acta Derm Venereol.* **78**: 381.
5. Ramesh V, Beena KR and Mukherjee A (2000). Sporotrichoid presentations in leprosy. *Clin Expt Dermatol.* **25**: 227-230.

**How to cite this article :** Garg G, Thami GP and Mohan H (2014). Sporotrichoid pattern of nerve abscesses in borderline tuberculoid leprosy: A Case Report (sporotrichoid like abscesses in leprosy). *Indian J Lepr.* **86** : 161-163.