

Lip Involvement in Leprosy - Is It a Changing Pattern of Leprosy?

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Facial skin is commonly involved in leprosy so are oral and nasal mucosa, however, involvement of mucocutaneous junction of the lip is uncommonly seen. Nineteen cases of adult leprosy (9 males and 10 females) with involvement of lip are presented in our case series. Of these 19 patients, seven were of borderline tuberculoid type, three were of mid-borderline, three were of histoid type, three were of borderline lepromatous and three were of lepromatous type. Amongst these, 10 had involvement of both the lips whereas 9 had involvement of one lip only. All these patients had additional lesions on the face and other parts of body. Lip involvement seen in multiple patients across all poles of leprosy could be because of changing pattern of leprosy.

Keywords : Leprosy, Lip Involvement, Changing Pattern

Introduction

The three most important endemic countries, India, Brazil and Indonesia, together account for more than 80% of all newly registered leprosy cases globally.

At present, in spite of the availability and successful implementation of effective multi-drug therapy (MDT) for more than 30 years and attainment of elimination (<1 case/10,000 population) in 2005 (Dhillon 2006), India still continues to have a high share of 58.8% of the world leprosy population (Sengupta 2018). Though the skin of the face and oral mucosa are

commonly involved in leprosy (Mishra et al 1996, Rawlani et al 2008), the involvement of the mucocutaneous area of lip is thought to be uncommon. Here we are presenting series of cases with leprosy involvement of lip.

Case reports

Nineteen cases of newly detected, treatment naïve Hansen's disease with lesions involving lips along with other body areas were seen by one of the authors (VAS) at his private out-patient centre in Nagpur, Central India from May 2012 till December 2015. Cases were diagnosed clinically. Slit skin smear was done in every case, and biopsy

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was done in few cases using 2 mm punch from lip lesion. Informed consent was taken to photograph the lesions and use them for record and publication purposes.

Of the 19 adult patients included in this analysis, 10 were females, and 9 were males. These include 3 patients with histoid Hansen's, 3 of lepromatous leprosy (LL), 3 of borderline-lepromatous disease (BL), 7 patients of borderline-tuberculoid (BT) and 3 patients of mid-borderline disease (BB). There was no patient of tuberculoid leprosy (TT) with lip involvement in our series. The age of the patients ranged from 20 to 70 years. Of these, 10 had involvement of both the lips, 8 patients had involvement of only upper lip, and 1 had only

lower lip involvement. This basic demographic data of our patients are mentioned in Table 1.

All the patients had lesions on other body areas also. There was no patient with lip involvement only, without skin lesions. All the histoid, LL and BL patients also showed skin smear positivity for acid-fast bacilli (AFB) from lip lesions. BT patients showed negative smear for AFB from the lesions on lip and other lesional sites of body.

All the reported patients hail from Central India which is considered to be highly endemic area for leprosy. All the patients were treated according to WHO leprosy regimen i.e PB-MDT & MB-MDT. In addition to this, all histoid patients and LL patients received daily dose of rifampicin 600 mg

Table 1 : Basic demographic data of leprosy patients having lip involvement

Sr. no.	Age/ Sex	Nerve involved/ deformities	Pole of leprosy	Sr. no.	Age / sex	Nerve involved/ deformities	Pole of leprosy
1	35/F	1 nerve/ no deformity	BT	10	20/ M	Multiple nerves	LL
2	30/F	No nerve & deformities	BT	11	32 /M	No nerve & no deformity	BT
3	20/M	No nerve/ deformity	BT	12	53/F	2 nerves/ no deformity	BL
4	38/M	2 nerves/ ulnar claw	BB	13	40/M	1 nerve/ no deformity	BT
5	65 /M	2 nerves/ no deformities	Histoid	14	45/F	No nerve & deformity	BT
6	47 /M	3 nerves/ no deformity	BL	15	48 /M	2 nerves/ ulnar claw	BL
7	67/M	Multiple nerves/ no deformity	LL	16	34/F	1 nerve/ no deformity	BB
8	49/F	2 nerves/ no deformities	BB	17	30/F	2 nerves/ no deformity	Histoid
9	36/ F	No nerve & no deformity	Histoid	18	30/F	1 nerve/ no deformity	BT
				19	55 /F	Multiple nerves/ no deformity	LL

Abbreviations : M- Male, F- Female, BT- borderline tuberculoid Hansen
BB- mid-borderline, BL- borderline lepromatous, LL- lepromatous leprosy



Fig. 1 : Photographs of lip lesions due to leprosy in patients across the spectrum

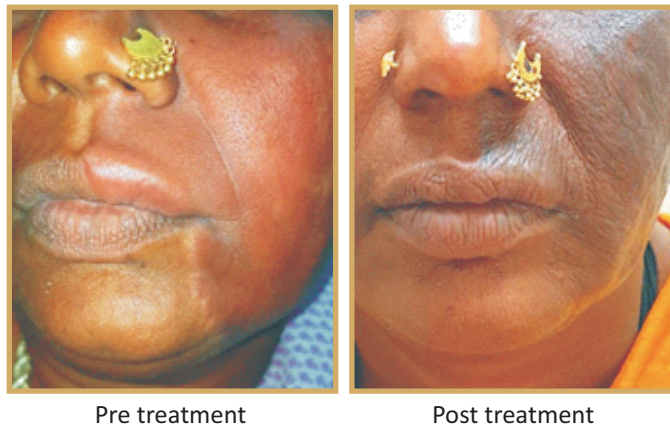


Fig. 2 : Appearance of pre- (active) and post- treatment (subsiding) lip lesion in a BT patient

and ofloxacin 400 mg for initial 1 month along with oral steroids (Ji et al 1997). 2 female patients of BT required long term steroid therapy for persistent type 1 lepra reaction.

Fig. 1 shows photographs of lip lesions in patients across the spectrum. Fig. 2 shows comparison of appearance of pre- and post- treatment lip lesion in a BT patient.

Discussion

Disseminated lepra bacilli can produce skin lesion on almost any part of the body through certain areas like the axilla, groin, hairy scalp are rarely affected, making them an immune area (Jopling & McDougall 1996). Even though not included as immune areas; acral areas like palms, soles and lips are not commonly involved in leprosy.

Though facial skin is involved in all poles of leprosy, mucosal involvement is usually seen in multibacillary leprosy. The involvement of oral mucosa, palate and tongue has been previously reported in lepromatous leprosy (Rawalani et al 2008). Face and lip involvement is common in BT lesions on the face whereas in LL lip is involved as part of diffuse infiltration as nodule/ papule/ diffuse thickening (Mishra et al 1996).

In the present paper, authors have reported multiple cases of Hansen's disease involving lips in all the spectrum of leprosy except tuberculoid leprosy. It is widely accepted that leprosy is transmitted as droplet infection, and nasal mucosa harbors millions of bacilli in multibacillary leprosy. However, surprisingly adjacent mucocutaneous area of lip though being continually exposed to the showers of bacilli in MB leprosy remains unaffected.

In all the patients, additional cutaneous lesions were present on the face. Clinically, oral mucosal involvement was not seen in any of these cases (except one), indicating that lip involvement may not be due to direct extension from buccal mucosal lesion. Ulceration of the lesion on lip was not seen in any of the patients. Sensory impairment of the lesions on lips was seen in BT-BB type, whereas Histoid and LL type did not show impairment. Borderline patients showed a patchy involvement of lips with lesions showing well-defined border, whereas lepromatous patients showed diffuse involvement of lips. Lip involvement in BB/BL/LL and Histoid type was seen as

a part of generalized involvement, whereas in paucibacillary leprosy, lip involvement was seen due to direct extension from facial lesions by the contiguous spread. It is possible that some of these patients, especially the lepromatous patients to have associated nasal involvement but the destruction of nasal cartilage or nose deformities were not seen in our cases. Lip involvement in leprosy can present as macrochelia. Handa et al (2003) in their clinico-pathological study of chronic macrochelia of 28 cases, found 3 cases of Hansen's disease. Our histoid patients showed a histoid nodule on lip. Pavithran (1997) has reported a case of histoid leprosy with lesions on lip.

We have used daily rifampicin and ofloxacin (RO) for initial 1 month as used by Ji et al (1997) for the treatment of histoid leprosy to kill maximum number of resistant bacilli. And to prevent the occurrence of lepra reaction due to rapid bacterial killing steroid has been added. The continuation of MB-MDT after one month of daily rifampicin and ofloxacin therapy is expected to minimize the recurrences which were reported by Ji et al (1997) study. Though no comparison with other options was done, this has proved useful in our patients. Two of the patients of BT required long term steroid (till 18 months intermittently in one of the patient) for persisting type 1 lepra reaction. Both these patients had more than 5 lesions and received MB-MDT. WHO MDT worked well in our patients.

Though isolated cases of lip involvement in leprosy have been reported earlier, lip involvement in multiple cases seen by a single consultant in this report indicates that the involvement is common in the present era. The increased involvement could be explained due to change of disease pattern, better attention to such lesions due to greatly reduced disease burden. With the changing scenario, the clinical picture of leprosy is

apparently changing, and a greater number of unusual presentations may be expected in the near future. In this study, we have focused on lip involvement in various spectrums of leprosy, so as to increase awareness about this clinical aspect of leprosy.

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