

## CUTANEOUS LEISHMANIASIS IN JODHPUR DISTRICT

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Cutaneous leishmaniasis is a disease with a wide geographical distribution in a range of climate and with different epidemiological patterns. In Rajasthan a new endemic zone of the disease has been found at Jodhpur district. The clinical features of 21 smear positive cases of oriental sore from Jodhpur district studied during a period of 1 year have been described. Also the importance of intralesional berberine sulphate in the treatment of oriental sore has been highlighted.

**Key Words :** Cutaneous leishmaniasis, Oriental Sore, Berberine sulphate

### Introduction

Cutaneous leishmaniasis is a disease caused by a protozoa. The common species causing the disease include *L tropica*, *L major*, *L aethiopica* and *L infantum*. Cutaneous leishmaniasis is also known as oriental sore (OS). OS is an important disease in India. Depending on the endemicity of the disorder local names have given such as Delhi boil, Gujarat sore etc.<sup>1</sup>

It is caused by the bite of a female sandfly *Phlebotomus*. Commonly the infection is zoonotic. Man is an accidental host. After an incubation period of 2 months or so a small brownish nodule appears which becomes a plaque in 4-6 months. Then a shallow ulceration appears in the centre followed by an adherent crust. After 6-12 months the lesion starts to regress and ulcer heals with a scar.

Treatment includes topical applications. Systemic therapy is reserved only for problematic sores because of more frequent side effects. The drugs commonly used topically and systemically include stibogluconate or meglumine antimonate.

In Rajasthan there is a high incidence of

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oriental sore specially in Bikaner district, where there have been periodic outbreaks.<sup>2</sup> Epidemic has also been reported in Jodhpur, in the year 1950.<sup>3</sup> Since last year there has been an increase in the number of cases of oriental sore in Jodhpur. It may be a new endemic zone of oriental sore.

### Materials and Methods

Cases with chronic non healing ulcers and crusted nodules attending the Skin and STD out patient department of MDM hospital from March 1994 to February 1995 and suspected of oriental sore were examined thoroughly. Smears prepared from the lesions were stained with Leishman's stain and examined for the presence of *Leishmania tropica* (LT) bodies in the macrophages. 21 smear positive cases were included in the study. Their detailed history and clinical examination were undertaken. For management, intralesional berberine sulphate was injected weekly in the dose of 0.5-1.0 ml per lesion. Response to the treatment was noted weekly.

### Results

On evaluating the distribution of the cases according to age and sex it was observed that the age of the patients ranged from 6 months to 60 years. There were 13(61.89%) females and 8(38.11%) males. Of

these 6(28.57%) were children. Cases between 0-10 years were 6(28.57%); 11-20 years 4(19.04%); 21-30 years 6(28.58%); 31-42 years 2(9.52%); 41-50 years 1 (4.77%) and greater than 50 years 2(9.52%). It was seen that majority of the cases 19(90.48%) were of less than 6 months duration. Lesions less than 1 month duration were only 3(14.29%); 1-3 months, 10(47.62%); 3-6 months 6(28.57%); and more than 6 months 2(9.52%).

Single lesion was present in 15(71.43%) cases whereas multiple lesions ranging from 2-3 were seen in 6(28.57%) cases. More than 3 lesions were not observed. The distribution of the lesions was characteristic. In 20(95.24%) cases, the lesions were on the exposed parts of the body. Lesions were seen on face- 15(71.43%); upper limb-4(19.05%); neck, 1(4.76%); and thigh-1(4.76%) being the only lesion present on clothed part of the body. Of the 17 cases lesions on the face (2 cases had multiple lesions) showed the following distribution - cheek 7(41.18%); nose -4(23.53%); lips 3(17.65%); eyelid - 2(11.76%) and chin -1(5.88%). The types of lesions seen were-ulcerative 12(57.14%); nodulo-ulcerative 6(28.57%) and nodular 3(14.29%).

All the patients belonged to Jodhpur district except one who belonged to a neighbouring district, Barmer. The patients of Jodhpur were mainly the residents of the inner walled city. In two families more than one family member was effected. In one family, mother and son and in other aunt and nephew were affected.

On intralesional injection of barberine sulphate majority of the lesions 15(71.42%) resolved in 4-6 weeks and 6(28.5%) resolved after 8-12 weeks, leaving an atrophic scar.

## Discussion

The present study showed female preponderance in contrast to other study.<sup>4</sup> Adults were affected more than children with a peak incidence between 10-30 years. Majority of the cases were less than 6 months duration and only 3 cases were of more than 1 year duration. This could probably be because the lesions heal spontaneously within a year. All the lesions except one occurred on the unclothed part of the body which is easily exposed to the bite of the fly, similarly lesion on the face were mainly on the cheek being prominent and large area of the face.

Multiplicity of the lesions was maximum on the upper limb, this again could be due to their maximum exposure. Most of the lesions were ulcerative and only 3 were nodular, unlike that reported earlier where lesions were predominantly nodular.<sup>4</sup> This is probably due to late reporting of the cases and during that period the lesion ulcerate, pointing to the lack of awareness by individuals. Majority of the patients were of a lower income group and of poor hygienic status.

Because OS is mainly a zoonotic disease, its increasing incidence in Jodhpur city could probably be due to a relatively large number of stray dog population, especially in the inner city as highlighted by Bikaner study.<sup>4,5</sup>

The response to intralesional barberine sulphate was excellent in all the cases. No side effect was noted in any of the cases. Hence, it may be recommended as a treatment of choice for oriental sore.

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