

Hansen's disease presenting as phimosis mimicking sexually transmitted disease

Sir,

Hansen's disease is caused by *Mycobacterium leprae*, which has a distinct predilection for the cooler parts of the body.^[1] Although leprosy is prevalent in countries like India, only few cases of genital involvement of leprosy have been reported so far.^[2-5] Testicular involvement in leprosy is well known but penile lesions are very rare. We report a case of leprosy presenting as phimosis at our sexually transmitted disease (STD) clinic.

A 30-year-old newly married man presented to us with penile swelling and redness of 15 days duration [Figure 1]. He had noticed mild hypopigmentation and loss of sensation over distal part of penis since one year. For this he had never consulted any dermatologist. Fifteen days back, he developed redness and swelling in the penis which was gradually progressing and for last three days, he had been unable to retract his penis. He had an extramarital sexual contact one month back. Hence, with these symptoms, he presented to our STD clinic. On examination, there was an erythematous, mild tender plaque present circumferentially over the prepuce, resulting in the inability to fully retract the prepuce. There was 60% to 70% loss of sensation over the prepuce according to the patient's assessment. Keeping the history of contact in mind we thought in the line of sexually transmitted diseases. There was no lymphadenopathy. Further examination revealed a well- to ill-defined, erythematous, raised lesion of size 10 × 16 cm over the right buttock [Figure 2]. There was mild scaling, total loss of sensation to temperature and fine touch. Skin over the lesion was slightly atrophic and there was loss of sweating and scanty hairs. Other parts of the skin were normal. Peripheral motor and sensory assessments were within normal limits and there was no history of nasal epistaxis. The systemic examination findings were within normal limits. Slit skin smear examination from both the buttock and penile lesions were 2+ with solid rods. Findings of routine hemogram, urine analysis and chest X-ray were within normal limits. Serum for Venereal Disease Research laboratory (VDRL) test in dilution



Figure 1: Erythematous, mild tender plaque present circumferentially over the prepuce with phimosis



Figure 2: A well- to ill-defined, erythematous, raised lesion of size 10 x 16 cm over right buttock

and enzyme-linked immunosorbent assay (ELISA) for HIV were performed and the results were negative. A provisional diagnosis of borderline tuberculoid leprosy with type 1 reaction was arrived and the patient was started on World Health Organization (WHO) multi-drug therapy (MDT) multi-bacillary (MB) regimen and prednisolone 40 mg daily. Within 5 days of starting treatment, swelling and tenderness improved by about 70% to 80% and there was no difficulty in retraction of the prepuce. A punch biopsy was done from the lesion over buttock and histopathological features were consistent with the diagnosis of borderline tuberculoid leprosy. Prednisolone was gradually tapered over a period of two months and patient was kept under follow-up.

Although no part of the skin is immune from invasion by *M. leprae*, some areas such as the axillae, groin, perineum and a narrow transverse band of skin over the

lumbosacral region have been described as “immune zones” because of their relative warmth. Except few cases, clinical involvement of the genitalia in leprosy has not been well documented in literature.^[6] Arora *et al.* and Kumar *et al.*, reported genital lesions in 2.9% and 6.6% of leprosy patients, respectively.^[4,5] Most of their cases belonged to the borderline and borderline lepromatous group, respectively. These reports give an impression that lesions on genitalia are not as uncommon as originally thought. The scrotum is a natural device to keep the testes cool, which could explain the findings of leprosy lesions over the scrotum, whereas lesions over the shaft and prepuce are very rare. The use of occlusive undergarments is likely to increase the temperature of the genital skin, which further explains the rarity of leprosy lesions there. However, in India where people are more used to wear loose clothes, it is expected to get more number of genital leprosy cases. Under-reporting of these cases is either due to a hesitancy of the patients to expose or due to the reluctance of physicians to examine the genitalia in a busy outpatient department schedule. Our patient was a case of borderline tuberculoid leprosy with type 1 reaction, who presented as phimosis mimicking sexually transmitted disease. In this modern era of HIV/AIDS, while examining patients having genital lesions, one should keep in mind the Hansen’s disease as a differential diagnosis. A wider range of suspicion and thorough clinical and laboratory examination will help to arrive at the proper diagnosis.

**Basanti Devi, Prasenjeet Mohanty,
Manas Ranjan Puhan, Bharati Sahu**

Department of Skin and VD, S.C.B. Medical College, Cuttack,
Orissa - 753 007, India

Address for correspondence: Dr. Manas Ranjan Puhan,
Department of Skin and VD, S.C.B. Medical College, Cuttack,
Orissa - 753 007, India. E-mail: drpuhan123@yahoo.com

DOI: 10.4103/0378-6323.51272 - PMID: 19439895

REFERENCES

1. Anish SA. The relationship between surface temperature and dermal invasion in lepromatous leprosy. *Int J Lepr* 1971;39: 848-51.
2. Ghorpade A. Penile shaft lesion in reactional borderline tuberculoid leprosy: A case report. *Indian J Dermatol Venereol Leprol* 2003;69:411-2.
3. Kar BR, Ebenezer G, Job CK. Penile tuberculoid leprosy in a five year old boy. *Indian J Dermatol Venereol Leprol* 2005;71:125-7.
4. Arora SK, Mukhija RD, Mohan L, Girdhar M. A study of cutaneous lesions of leprosy on male genitalia. *Indian J Lepr* 1989;61:222-4.
5. Kumar B, Kaur I, Rai R, Mandal SK, Sharma VK. Involvement of male genitalia in leprosy. *Lepr Rev* 2001;72:70-7.
6. Agrawal US, Saini M, Mathurn DK, Meena RS, Saxena VN.

Letters to the Editor

Nodular penile lesion in Hansen's disease mimicking sexually transmitted disease. *Int J Lepr Other Mycobact Dis* 2001;69:352-4.