

Phimosis as a Presenting Manifestation of Genital Involvement in Leprosy¹

TO THE EDITOR:

Though testicular involvement is well known in leprosy, there are only few published reports on the presence of lesions of leprosy on male genital skin. In most of the cases reported, lesions were present on the scrotum with or without involvement of penile shaft, prepuce or glans. We report herein, a case of borderline lepromatous (BL) leprosy in type 1 reaction with cutaneous lesion over the prepuce presenting as phimosis.

CASE REPORT

A 20-year-old male patient presented to us with complaints of erythematous painful swelling of the prepuce with inability to retract for the duration of 1 week. Patient had noticed asymptomatic hypopigmented patch over the same site since 6 to 8 months for which he did not take any treatment. Apart from this, he was not aware of any lesion over other parts of the body prior to this episode. On examination, there was an erythematous, tender, plaque present circumferentially over the prepuce resulting in inability to retract prepuce (The Figure). Further examination revealed multiple (25 to 30) erythematous hypoanesthetic plaques with loss of hair and minimal scaling, measuring from 1 to 5 cm in size over trunk, limbs and one small lesion over the scrotum. His right ulnar nerve, greater auricular nerve, and left common peroneal nerves were thickened with no sensory or motor deficit in the area of their distribution. There was mild tenderness involving

right ulnar nerve alone. On slit skin smear examination from ear lobes and lesions (4 sites), BI was 1+ and skin biopsy from one of the lesions showed histopathological features consistent with BL Hansen. Patient was started on World Health Organization (WHO) multi-drug therapy (MDT) multi-bacillary (MB) regimen and Tab. prednisolone 30 mg daily. Within a week of starting treatment, swelling and tenderness regressed almost completely and there was no difficulty in retraction of prepuce. Prednisolone was gradually tapered over the next 12 weeks and patient has continued to do well at six months follow-up.

DISCUSSION

Although no part of the skin is immune from invasion by *Mycobacterium leprae* (⁵), the genital skin has been described as an unusual site for leprosy (¹). Genital skin has been reported to be relatively cooler than the core temperature under experimental conditions, and thus expected to be at increased risk of infiltration by *Mycobacterium leprae* (⁴). However, due to the use of occlusive undergarments, it is likely that the temperature of the genital skin may not remain that low and this elevated temperature may possibly make this area less prone to the development of leprosy lesions (⁶).

Clinical involvement of the genital skin in leprosy has not been studied widely, largely because of the inability in examining patients in totality in routine clinical set-up. Fox and Knott (³) first time reported involvement of male genitals in the form of leprosy nodules on the scrotum, prepuce and glans. Parikh, *et al.* (⁹) reported six cases of borderline leprosy with lesions on scrotum and penis. Dixit, *et al.* (²) reported presence of scrotal lesions in tuberculoid leprosy. Kumar, *et al.* (⁶) observed genital lesions in 6.6% of all male cases of leprosy. They were seen most frequently in leproma-

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THE FIGURE. Erythematous plaque with swelling over the prepuce (pubic hair shaved).

tous leprosy (25.8%) followed by borderline lepromatous (13.3%) and borderline tuberculoid (1.4%) leprosy. Arora, *et al.* (1) found genital lesions in 2.9% of the cases with borderline disease. Most of their patients belonged to the borderline group and were in type 1 reaction. Rarely, histoid lesions have also been reported on the male genitals (7, 10).

Mycobacterium leprae has been found in the dartos muscle of scrotum even after adequate therapy (11). Pandya and Anita (8) have reported leprosy granulomas and AFB in one third of biopsies from the scrotal skin in patients with all types of leprosy even in the absence of lesions on scrotum. Our case presenting with leprosy lesion on prepuce as phimosis is probably first of its kind. Recently published reports (6, 12) indicate that genital skin lesions in male leprosy patients are not as uncommon as suggested previously. These lesions are missed either because they are not looked for carefully or reluctance on the part of patients to expose the genitals. Therefore, genital examination of leprosy patients is important not only to document its involvement but also to find out any other associated disease, which will require more attention than mere documentation.

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