CASE REPORTS

PHIMOSIS AND SCROTAL LESIONS IN LEPROSY: TWO CASE REPORTS

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Abstract. We report two cases of borderline leprosy patients, one with scrotal lesions, the other presenting with leprosy on the prepuce with phimosis.

INTRODUCTION

Leprosy is a chronic infectious disease affecting the peripheral nerves, the skin, and certain other tissues. Leprosy lesions are not commonly seen on the male genitalia. Here we report two cases of borderline leprosy patients, one with a prepucial lesion, the other with scrotal lesions.

CASE REPORTS

Case 1

A 48-year-old man presented to our clinic with a large hypopigmented patch on his left waist for 3 years duration. There was no underlying disease or family history of leprosy.

Cutaneous examination revealed a 15 x 20 cm hypopigmented patch on the left side of the waist. The surface was dry and hypoesthetic. Two hyperpigmented scaly plaques lying over a hypopigmented patch were also noticed on the scrotal skin. There was no nerve thickening or lymphadenopathy. A slit skin smear examination was negative from both earlobes, but revealed 1+ AFB in the scrotal plaque. A clinical diagnosis of borderline tuberculoid leprosy was made and the patient was started on WHO Multidrug Therapy for multibacillary leprosy. On re-examination one month later the scrotal plaques had become flattened.

Case 2

A 52-year-old male was referred from a regional hospital because of reddish skin lesions over his left back. He had asymptomatic white patches on his left upper back for several years, treated with herbs and medicated creams. Twenty days before attending our clinic, his wife noticed reddish skin changes in the lesions on his back. Three days later, he consulted a dermatologist at a regional hospital and a skin biopsy of the back lesion was performed. He was histopathologically diagnosed as having tuberculoid leprosy and WHO Multidrug Therapy for multibacillary leprosy was started. One week later, he reported new reddish lesions on his chest and face. He had no family history of leprosy. Physical examination of his wife and daughter showed no signs of leprosy.

Cutaneous examination revealed a large, well-defined, arcuated, erythematous, scaly, smooth surfaced, tender plaque about 20 cm

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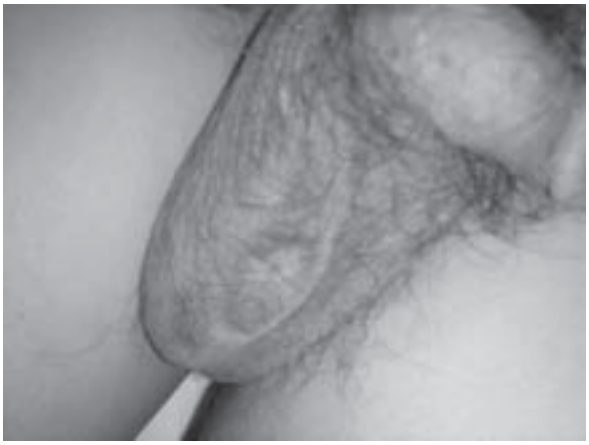
in diameter over the left side of his upper back with satellite lesions. Two erythematous papules on the face and one erythematous papule about 1 cm in diameter on the chest, were detected. Upon being asked about having other skin lesions, he mentioned a painful penile lesion that had developed recently. On genital examination, there was an erythematous, tender, irregular surfaced, plaque present circumferentially over the prepuce resulting in inability to retract the prepuce. His right and left posterior tibial nerves, and left ulnar nerve were thickened. There was mild tenderness involving his left ulnar nerve. There was no lymphadenopathy.

Skin smears from both earlobes were negative for AFB, but slit smears from the lesions on the chest and back were positive for AFB at 2+ to 3+ on the bacterial index (BI).

The patient was diagnosed as having borderline tuberculoid leprosy with a severe type 1 reaction, the reactional inflamed prepucial lesion resulting in phimosis. WHO Multidrug Therapy for multibacillary leprosy was continued, and prednisolone 30 mg daily was started. Two weeks later, he reported worsening of the pre-existing skin lesions with increased redness and swelling. Prednisolone was then increased to 40 mg daily. Within a week, the swelling, redness and tenderness regressed almost completely and there was no difficulty in retraction of the prepuce.



Case 1. BT leprosy lesions on the scrotum.

Case 2. A reactional plaque of BT leprosy on the prepuce causing phimosis.

DISCUSSION

Alhough no part of the integument is immune from invasion by *Mycobacterium leprae* (Kaur and Kumar, 1978), the male genital skin has been described as an unusual site for leprosy (Arora *et al*, 1989). The genital skin has been reported to be relatively cooler than the core body temperature, and thus is expected to be at increased risk for infiltration with *M. leprae* (Kandeel and Swerdloff, 1998). However, owing to the use of occlusive undergarments, it is likely the temperature of the genital skin may not remain low and this elevated temperature may make this area less vulnerable to the development of leprosy lesions (Kumar *et al*, 2001). Clinical involvement of the male genitalia in leprosy has not been well documented in the literature. Only a few cases have been reported. Fox and Knott (1932) reported leprosy nodules of the male genitalia in four patients in a leprosy asylum. In two cases, the nodules were present on the

scrotum and prepuce, in one on the prepuce and glans and in one on the scrotum alone. Parikh *et al* (1989) reported six cases with leprosy lesions of the penis and scrotum. Arora *et al* (1989) found leprosy lesions on external genitalia in 13 (2.9%) patients after examining 450 male leprosy patients. In all 13 cases the scrotum was involved. In three cases, the shaft of the penis and in one the prepuce and glans were also involved. Most of their patients belonged to the borderline group and had a type 1 lepra reaction.

Our patients had borderline tuberculoid leprosy. One with scrotal lesions, the other presenting with leprosy on the prepuce with phimosis. This is probably the first case of the kind in a Thai patient. The phimosis resolved quickly because of the swift response of the type 1 lepra reaction causing phimosis, to systemic corticosteroids. Genital lesions are easily missed either because physicians omitting to examine the genitalia as a routine or reluctance on the part of patients to inform the physician of the presence of genital lesions. Although rare, leprosy lesions may occur on the male genitalia and therefore in all male leprosy patients, history taking and examination of external genitalia should not be neglected.

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