CASE REPORT

Leprosy lesion on the prepuce of the male genitalia: a case report

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Summary A case of borderline leprosy in type I reaction with cutaneous lesions on the prepuce is reported. The need to examine the genitalia in all male leprosy patients is stressed.

Introduction

Leprosy lesions are not commonly seen on the male genitalia.1 In most of the cases reported, lesions were present on the scrotum with or without involvement of the penile shaft, prepuce or glans. Here we report a case of borderline leprosy in type I reaction with cutaneous lesion on the prepuce. The scrotum was not involved.

Case report

A 22-year-old male presented with skin lesions with loss of sensation of 1 year’s duration. On examination, he had multiple, asymmetrically distributed, well to ill-defined, hypopigmented lesions with impaired sensation to touch, pain and temperature on the trunk and extremities. Ulnar, radial cutaneous and lateral popliteal nerves were thickened bilaterally. Although the skin smears from the routine sites (routine sites for smear at SLR & TC, Karigiri, are right earlobe, left forehead, chin right side and left buttock) were negative for AFB, the skin smears from two selective sites (patches on the trunk and right upper limb) were positive with a BI of 1+. Each. The overall mean BI of the patient was 0-4+. A clinical diagnosis of borderline leprosy was made and the patient started on WHO Multidrug Therapy for multibacillary leprosy patients.

One month later, he reported with painful swelling of the external genitalia with inability to retract the prepuce. He denied any exposure to the risk of acquiring a sexually transmitted disease.

On re-examination all the previous lesions had become warm and tender with oedema and
erythema. A warm, tender, erythematous plaque with oedema was seen on the prepuce (Figure 1). There was no ulcer or purulent discharge from the external genitalia and there was no inguinal lymphadenopathy. A diagnosis of borderline leprosy in type I reaction was made.

Routine laboratory investigations, which included haemoglobin, total and differential blood counts, erythrocyte sedimentation rate and routine urine examination, were within normal limits. VDRL was non-reactive and antibodies to HIV were negative. A biopsy from the lesion on the prepuce showed dense granulomatous infiltrate composed of epithelioid aggregates admixed with macrophages, Langhan’s and foreign body giant cells and few plasma cells infiltrating blood vessels and skin adnexa. The dermal nerves were prominent and showed intraneural lymphocytic infiltrate. The dermal blood vessels and lymphatic channels were dilated and there was oedema. The epidermis showed confluent parakeratosis and atrophy. The Granuloma Fraction was 80%. Section stained for AFB showed clumps of bacilli within the macrophages. They were predominantly granular and beaded. The bacillary index of the granuloma was 2+. It was reported as ‘borderline lepromatous leprosy? borderline tuberculoid leprosy, in type I reaction’.

Discussion

Clinical involvement of the genitalia in leprosy has not been well documented in literature.² Few cases have been reported. Fox and Knott¹ reported leprous nodules on the male genitalia in four patients in a leprosy asylum that had 83 inmates. 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.² reported six cases with leprosy lesions on penis and scrotum. All
six cases had borderline leprosy. Two cases were in type I reaction. Kumar et al. reported genitalic lesions in 6-6% of their patients. Most of their patients belonged to the BL group. Dixit et al. reported scrotal lesion in tuberculoid leprosy. Pandya and Antia reported leprous granulomas and AFB in one-third of biopsies of scrotal skin in leprosy patients even in absence of lesions on the scrotum. Ramu and Desikan found *Mycobacterium leprae* in the dartos muscle even after adequate therapy. Rarely histoid lesions have also been reported on the male genitalia. Arora et al. found leprous lesions on external genitalia in 13 (2.9%) patients after examining 450 patients. In all 13 cases the scrotum was involved. In three cases, the shaft of the penis and in one the prepuce and glans penis were also involved. Most of their patients belonged to the borderline group and were in type I reaction. They concluded that cutaneous lesions of leprosy on the male genitalia were not uncommon. The lesions are missed due to either doctors omitting to examine the genitalia as a routine or reluctance on the part of the patients to show the genitalia.

Our patient was a case of borderline leprosy. Obviously the genitalia were not examined when the patient first reported and the lesion on the prepuce was discovered after he reported having difficulty in retracting the prepuce. The scrotum was not involved. Although rare, leprosy lesions may occur on the male genitalia and therefore in all male leprosy patients, examination of the external genitalia should not be neglected.

References