

## URETHRAL FISTULAE OF TUBERCULOUS ORIGIN

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### SYNOPSIS

**Two cases of stricture urethra presented to us with multiple urethral fistulae and periurethral phlegmon. While on urological evaluation, it was found that tuberculosis was responsible for such a presentation. Both the patients required appropriate surgical procedures in addition to antituberculous therapy. The possible explanation for the rarity of tuberculosis of the urethra despite the common existence in the Indian population, is discussed.**

### INTRODUCTION

Urologists who have large collection of patients with genitourinary tuberculosis are surprised by the rarity of tuberculosis of the urethra (1, 2, 3). O'Flynn (4), though treated 702 cases of genitourinary tuberculosis, encountered stricture of urethra in only 10 of these patients and more so, histologic documentation is lacking. Even in developing countries like India where the disease is rampant, tuberculosis is the rarest of the causes of inflammatory strictures in the urethra (5, 6). Accordingly only 7 cases of tuberculous urethral fistulae are reported (1, 5, 7). Our recent experience on this problem is reported here.

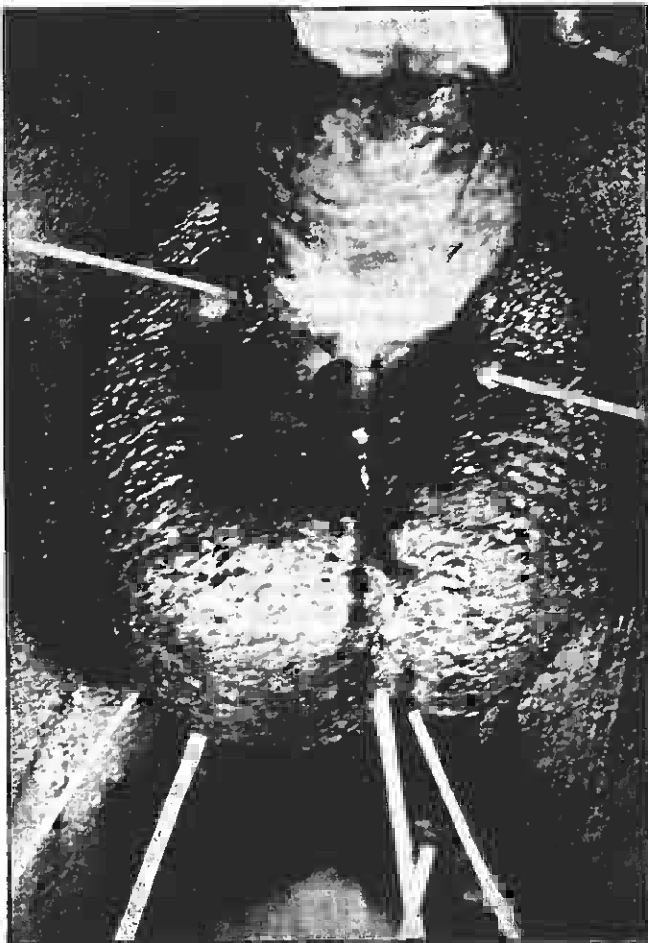
## CASE REPORTS

### Case 1

Mr. G., aged 45 years, was admitted to the urology services for the complaints of passing urine through multiple holes in the perineum and scrotal regions since last 2 years. He did not suffer from any systemic illness of overt nature. Examination revealed no abnormality in respiratory, cardiovascular and gastro-intestinal systems. Urethral meatus was scarred. Penoscrotal region and perineum were soiled with urine and the skin was oedematous containing many fistulous orifices (Fig. 1). Voiding cystourethrogram delineated stricture and multiple fistulae from bulbomembranous urethra (Fig. 2). Intravenous urogram was unremarkable. Vesical urinary diversion was done. After 12 weeks, it was found that there was no change in the clinical features. Later, at operation, anterior urethra was marsupialized and a trans-sphincteric skin inlay, raised from perineo-scrotal healthy skin, was performed after excising the fistulae. Histology of the fistulae and the stricture revealed tuberculosis. Urine did not grow mycobacteria. Chemotherapy consisting of streptomycin, isoniazid and para-amino salicylic acid was given for 18 months. He is well now. He is not very keen to undergo second stage reconstruction of his urethra.

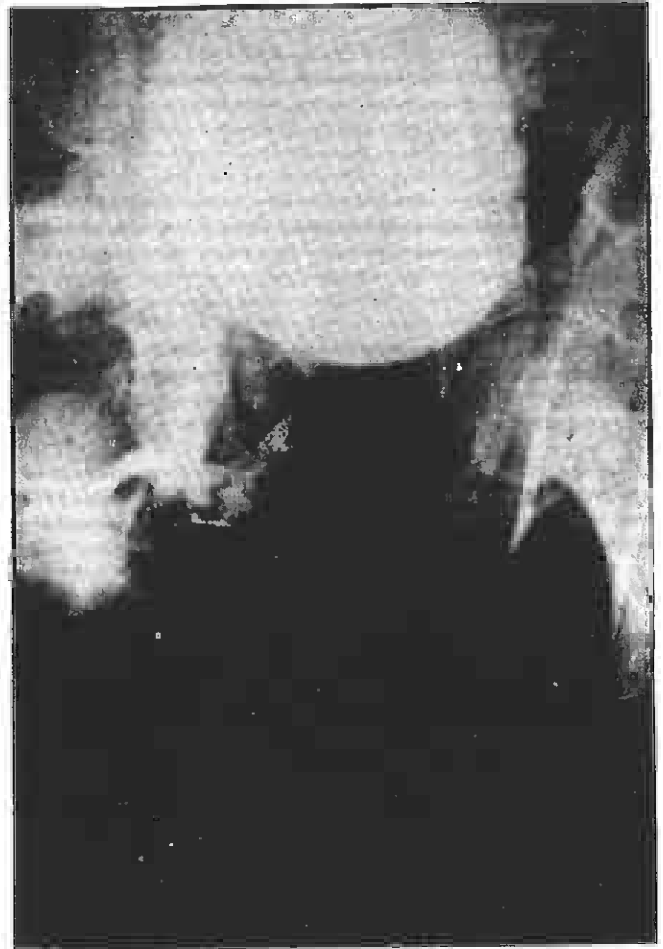
### Figure 1:

Shows probes in urethral fistulae in penoscrotal and perineal regions.



### Figure 2:

Voiding cystourethrogram of the patient in Fig. 1 showing strictures and fistulae at bulbomembranous urethra.



### Case 2

Mr. A., aged 42 years, was admitted with multiple peri urethral abscesses and fistulae. Drainage of abscesses and cystostomy were done. Pus grew staphyogenes. The urethral fistulae did not heal in 10 weeks and a biopsy of the fistulous tracts revealed tuberculosis. The routine investigations including a chest skiagram were within normal limits. Urine did not grow mycobacteria. Urethrogram showed strictures of penile and bulbomembranous urethra with multiple fistulae. Excretory urogram was within normal limits with regard to the upper urinary tracts. He was put on antituberculous drugs and the fistulae healed in 12 weeks' time. Johanson's marsupialization for the entire penile urethra and a perineoscrotal in-lay of skin upto the submontal level were performed. Recovery was smooth.

## DISCUSSION

It appears that stasis of urine, infected with mycobacterium tuberculosis, in the urethra is very essential for the genesis of tuberculous lesion of urethra. Normal micturition act, by virtue of the stripping action of bulbous spongiosus does not allow stasis of urine, infected material and discharges from the prostatic urethra (7). Quite logically, one can assume that urethral stricture is a pre-

disposing factor for the development of urethral tuberculosis. Haematogenic spread resulting in spongiosal abscess, subsequent rupture and fistulae can occur as observed (1, 7). Since such an unusual chain of events are required the problem is rare indeed.

Contrary to the Western experience on the nature of urethral strictures, we observed large number of inflammatory strictures of nonspecific origin (6). It was unique in the cases of tuberculous urethral fistulae reported so far, that the presence of mycobacteria or histopathology characteristic of tuberculosis in the fistulous tracts, the discharged fluid or in the involved urethra are infrequently demonstrated (1, 7). Routine biopsies of all the strictures and urethral fistulae helped us to identify a handful of cases of unusual histology like tuberculosis and balanitis xerotica obliterans. This emphasizes the fact that strictures in the urethra in patients with urinary tuberculosis need not be due to tuberculous inflammation, until proved so. In case 1, we arrived at the diagnosis after dealing with the fistulae and the urethral stricture and in case 2, we could make it pre-operatively.

In accordance with tuberculous lesions elsewhere, antituberculous therapy remains the mainstay of treatment for tuberculous urethral fistulae too. Urethrograms performed few weeks after the institution of the therapy, generally would indicate the nature of the urethral lesion to be dealt with later. In addition careful assessment

of the upper urinary tracts by excretory urogram is mandatory to exclude tuberculous involvement and to gauge the necessity for additional procedures.

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