# Primary Tuberculosis Of Penis Mimicking A Malignant Ulcer

C KishanChand, V A P, A Chethan, S Prasad

#### Citation

C KishanChand, V A P, A Chethan, S Prasad. *Primary Tuberculosis Of Penis Mimicking A Malignant Ulcer*. The Internet Journal of Dermatology. 2009 Volume 8 Number 1.

## **Abstract**

Primary Tuberculosis of penis is an extremely rare entity, even in thedeveloping countries. We report a case of a 50 year old male patient who presented to us with lesion on the glans penis and was diagnosed as Carcinoma penis, however the biopsy of the lesion showed evidence of tuberculosis which was confirmed later on by a strongly positive mantoux test, immunohistochemistry and Polymerase chain reaction. The patient was started on Antitubercular therapy to which he responded extremely well.

## INTRODUCTION

Tuberculosis of penis is extremely rare. Until 1971 only 171 cases have been reported following which about 30 cases have been reported thereafter to the best of our knowledge. It is interesting to observe that case reports of the above condition have diminished significantly in the 21<sup>st</sup> century.

Tuberculosis of penis presents as lesions on the glans or shaft of penis and may mimic a malignant disease <sup>2</sup>, a subcutaneous nodule<sup>3</sup> or an ulcer . In our case the session occurred in the form of an ulcerated lesion over the glans with everted edges and induration mimicking a malignant lesion.

# **CASE HISTORY**

A 59 year old male patient from Nepal presented with the complaint of Ulcer on the glans penis since 4 months. It initially started as a small ulcer over the dorsal aspect of glans penis measuring around 0.5 x 0.5 cms , it increased in size and destroyed and distorted most of the glans in a period of 2 months , it was associated with pain . There was no history of burning micturition or haematuria .

On examination, the majority of glans penis was destroyed and the residual glans had an irregular ulcerated growth with everted edges at the lateral and inferior aspects. The margins were irregular (fig 1) . Urethral opening was distorted. On palpation, tenderness was present, edge and base was indurated , rest of external genitalia was normal . Bilateral inguinal group of lymphnodes were enlarged, they were discrete, firm, mobile and nontender . Systemic examination

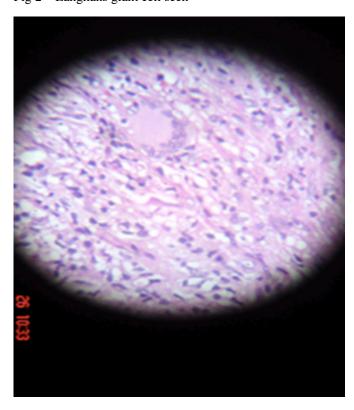
was normal.

**Fig 1** – Penile ulcer at presentation



With the above clinical findings a diagnosis of carcinoma of penis was made . Edge biopsy from the ulcer was suggestive of chronic granulomatous lesion, possibly caseating Tuberculous granulation tissue (fig 2).

Fig 2 – Langhans giant cell seen



Manotoux test was strongly positive. E S R was 94mm/hr. Lymphnode biopsy showed reactive lymph nodes (fig 3). Immunohistochemistry was done which demonstrated antibody complexes of tubercle bacilli (fig4). PCR (fig 5) was done which confirmed tuberculosis .

Relevant investigations were done to rule out pulmonary and renal tuberculosis.

**Figure 3**Fig 3 – Histopathology of lymphnode showing reactive follicles

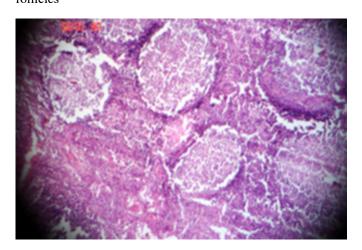
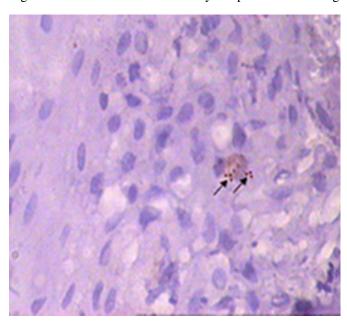


Figure 4

Fig 4 - Tissue immunohistochemistry samples demonstrating



Antibody complexes of M tubercle bacilli

Figure 5

Fig 5 - Polymerase Chain reaction : 241bp band DNA was amplified which occurs in Tuberculous infection.



The patient was started on Anti Tubercular Therapy with four drug regimen of Rifampicin, Isoniazid, Pyrazinamide and Ethambutol . Within a period of two months the ulcer healed and the pain decreased (fig 6). He was discharged and continued on 2 drug regimen for 4 months and followed up,

his ulcer had completely healed.

## Figure 6

Fig 6 - After 12 weeks of ATT



## **DISCUSSION**

Although Tuberculosis can affect any organ of the body, penile tuberculosis is extremely rare. Penile tuberculosis may be primary or secondary. The primary cases can occur as a complication of ritual circumcision, during coital contact with the disease already present in the female genital tract, or even from infected clothing<sup>4</sup>, the bacilli are inoculated into abrasions caused by vigorous sexual activity since normal mucosa is highly resistant to tuberculosis<sup>1</sup>. Sometimes penile lesions may be caused by inoculation of the male partner through his own infected ejaculate.

Tuberculosis of penis may affect the skin, glans or cavernous bodies. In most cases the lesion takes the form of an ulcer as occurred in our case, and rarely may it present as a solid nodule. Histopathological examination of the involved tissue is the essential initial investigation. Tuberculous infection can be confirmed by Polymerase chain reaction<sup>5</sup>. Intravenous urography should be done to rule out urinary tuberculosis, Chest X Ray should be done to rule out pulmonary involvement.

Unless the possibility of Tuberculosis is considered the diagnosis may be missed or delayed. This condition promptly responds to Anti tubercular therapy as evidenced by our case and many other reports, however relapses have been reported<sup>6</sup>.

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# **Author Information**

 $Chethan\ Kishan Chand,\ MS$ 

KMC

Vilas A P, MS

Anitha Chethan, MBBS

KMC

**Seetharam Prasad** 

MS, KMC