Tuberculosis of the Glans Penis: A Case Presentation with Review Literature

NISAR AHMED SHAIKH¹, AAMIR ALI SHAIKH², HAMEED-UR-REHMAN BOZDAR³, RIAZ HUSSAIN⁴, KHOB CHAND ROHRA⁵, MUHAMMAD IMRAN SOOMRO⁶, AMANULLAH ABASSI⁷

¹Associate Professor, CMC/SMBBMU Larkana

²⁻⁷Assistant Professor, CMC/SMBBMU Larkana

Corresponding author: Dr. Aamir Ali Shaikh, Email a.aamir40@yahoo.com, Cell: 03315007860

ABSTRACT

Background: Tuberculosis of the glans penis is a rare occurrence., even in developingnations.

Aim and Object: To review the literature and case presentation of Tb of glans penis

Methodology: Pakmedinet, Pubmed and google data were searched for Tb of glans penis.

Literature Review: Tuberclosis of the penis can be primary or secondary, and it might look like penile cancer, penile ulcers (granulomatous), genital herpes simplex or HIV infection. Tb of the Penis can develop after a individual who had primary pulmonary Tb and can be spread through ejaculation, contamination of endometerium secretions or clothes, as a result of a previous pulmonary Tb or Tb somewhere else. Tb of the Penis is characterised by a tiny nodule on the penis that is either painless or painful, an ulcer, a mass that progressively increasing and be swelling. Palpation of inguinal lymph nodes and erection problems of the penis can or can not observed. Normally, the patient's voiding is normal. Biopsy or acid fast bacilli in penile discharge or positive Elisa serology or PCR for tuberculosis are used to confirm the diagnosis. Needs 6 months, pulmonary tuberculosis therapy.

Conclusions: Tb of the glans penis is an uncommon occurrence. After a biopsy, antitubercular medications are the standard treatment, thus doctors should evaluate the potential of Tb of the penis in instances of penile lesions.

Keywords: Tb, penis, presentatation management and review litrarature

INTRODUCTION

Tuberculosis is the most prevalent and persistent human infection in the developing countries. Because the illness may harm any organ and simulate other diseases, it is known as the "great mimicker." Tb has never been eradicated internationally by any country.^{1,2} Even in countries with high rates of pulmonary and extrapulmonary tuberculosis,³ Tb of the penis is uncommon.

Globally, diagnosing Tb of the penis in Tb non-endemic areas of the world would be considerably more difficult, as many practitioners would be unaware of the possibility of such a clinical manifestation of uncommon disease.^{4,5}

Aims and the object: The objective of this research is to assess the literature and presenting a case study of Tb glans penis..

METHODOLGY

The terms Tb of the glans penis were searched on Pakmedinet, Pubmed, and Google. To create the literature review, using 54 sourcesof Pakmedinet, Pubmed and google data.

CASE REPORT

A male patient 59 years, have history of ulcerative development across his glans penis since last 12 months. It began as a tiny ulcer measuring roughly 0.4x0.4cm on the dorsal portion of the glans penis. It was linked to discomfort, difficult in urination as well as burning micturition. In past no any history of trauma, loss of weight, temperature, cough, sexual interaction or surgery. An irregular ulcero-proliferative growth of 6x 7cm was discovered on physical examination, encompassing both dorsal surfaces of the glans penis [Fig-1].



Figure 1: TB of glans penis

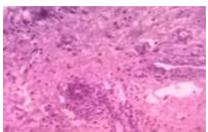


Figure 2: Histopathology of TB glans penis

The ulcero-proliferative growth with many fistulae obscured the urethral meatus, but the patient's voiding was normal. Tenderness was palpable on the verge. Tenderness was apparent on palpation, and the margin

and base were indurated. The remainder of the genital examination was unremarkable. The lymph nodes in the inguinal region on both sides were not swollen. Clinically identified as carcinoma penis, a biopsy was performed, and the biopsy revealed Tb of the penis (Fig-2). The patient was managed with Tb therapy (first-line).

DISCUSSION

Tuberculosis affects one-third of the world's population, making it one of the most hazardous illnesses.⁶ In 2013, an around 9 million incidence of TB cases were recorded throughout the world. According to estimate, 170,000 multidrug resistances of tuberclosis fatalities and 450,000 new MDR-TB cases.Despite the fact that Tb is widespread, just a few instances of Tb of the penis have been recorded internationally.^{7,8} In 1848, Fournier is said to have documented the first instance of Tb of the penis, which had many ulcers and regional lymphadenopathy. Konohana and colleagues published the positive culture tuberculosis penis (1st case) that was tuberculosis-positive in 1992.^{9,10}The presentation. also examination, diagnosis, and therapy of this relatively uncommon condition would be foreign to the majority of practitioners.^{11,12} In males, less than 1% of prevalence of Tb of the penis among all cases of genital Tb, with the epididymis being affected in 42 percent of cases, seminal vesicles in 23 percent, prostate in 21percent, testis in 15percent, and vas deferens in 12percent.According to Devine and colleagues.14 Tb of the penis is more common in adults, and it can be occur as primary tuberculosis or as a secondary (pulmonary Tb). Tb of penis affects the epidermis, glands of the penis, and cavernous bodies mostly.¹⁵ The skin, glans penis, and cavernous bodies are affected by tb of the penis and in the majority of cases, the disease appears as a superficial ulcer on the glands or throughout the corona, as these are the most commonly rubbed additives of the penis during sexual contact or with inflamed clothing, or the disease can also appear as a solid nodule and glans destruction.^{16,17} Biopsy or AFB in penile discharge, or a superb Elisa Tb serology/PCR are tools of diagnose of Tb of penis.¹⁸ Tb of penis generally require a length of 6-month remedy for maximuminstances.¹⁹⁻²⁵ However tuberculosis multiresistant does arise, and those patients who develop multiresistant Tb treatment.²⁶⁻³¹ Our case responded well on first line ATT regimen.

CONCLUSION

TB of glans penis is a unprecedented presentation. After a biopsy, antitubercular medications are the standard of care, thus doctors should evaluate the potential of Tb of the penis in instances of penile lesions.

REFERENCES

- Tapsoba AK, et al. Primary tuberculosis of glans penis: A case presentation and review litrature Urol case Rep 2021;34(6):89-95.
- 2 Merchant SA. Tuberculosis of the genitourinary system. Indian J Radiol Imaging. 1993;3:275–86.
- 3 Jordaan HF, Schneider JW, Schaff HS, Victor TS, Geiger DH, Van Helden PD, et al. Papillonecrotic tuberculoid in children. A report of eight patients. Am J Dermatopathol. 1996;18(2):17-25.
- 4 Elkhachine y et al. Tuberculosis of glans penis. Venereol 2020;56: 145-50
- 5 Deb S, Mukherjee S, Seth J, Samanta AB. Nodulo-ulcerative tuberculosis of the glans penis—a case report and a discussion on nomenclature of genital tuberculosis. Indian Journal of Dermatology. 2015;60(5):506–08.
- 6 Ramesh V, Ramam M, Pahwa P, Malhotra S. The clinical presentations of penile tuberculosis. Int J Dermatol. 2013;52:759–61.
- 7 Alka D, Sunil KG, Anita B. Papulonecrotic tuberculid of the glans penis-a case report. Journal of Pakistan Association of Dermatologists. 2005;15:285–87.
- 8 Baveja CP, Vidyanidhi G, Jain M, Kumari T, Sharma VK. Drugresistant genital tuberculosis of the penis in a human immunodeficiency virus non-reactive individual. J Med Microbiol. 2007;56(pt 5):694–95
- 9 Handog EB, Macarayo JE, Rosen J, and Ofori AO. "Cutaneous manifestations of tuberculosis," UPToDate Release. 2013; 21: 89-105.
- 10 Pal DK, Kundu AK, Chakraborty S, and Das S. Tuberculosis of penis: report of two cases. Indian Journal of Tuberculosis 1996;43: 203– 204.
- 11 Kar Jk and Kar K. Primary tuberculosis of the glans penis. Journal of Association of Physicians of India 2012; 60(8):52–53,

- 12 Baveja CP, Vidyanidhi G, Jain Q, Kumari T, and Sharma VK, Drugresistant genital tuberculosis of the penis in a human immunodeficiency virus non-reactive individual. Journal of Medical Microbiology 2007.56(5):694–695.
- 13 Angus BJ, Yates M, Conlon C, and Byren I. Cutaneous tuberculosis of the penis and sexual transmission of tuberculosis confirmed by molecular typing. Clinical Infectious Diseases 2001;33(11):132–134.
- 14 Kishan C, Vilas AP, Chethan A, and Prasad S. Primary tuberculosis of penis mimicking a malignant ulcer. The Internet Journal of Dermatology 2009; 8(1):85-95.
- 15 Ghorbani T, Akbari M, Alishiri G, Pourfarziani V, and M. Movahhed. Primary tuberculosis of the penis in a renal transplant patient. Iranian Journal of Clinical Infectious Diseases 207;2(2):95–98
- 16 Sekhon Gs, Lal MM, and Dhall JC.Tuberculosis of penis.Journal of the Indian Medical Association 1971;6(10):316–318, 1971.
- 17 Wilson SM, Goss S, and Drobniewski F. Evaluation of strategies for molecular fingerprinting for use in the routine work of a mycobacterium reference unit. Journal of Clinical Microbiology 1998;36(11):3385–3388, 1998.
- 18 Penneys NS, Leonardi LN,Cook S et al. Identification of Mycobacterium tuberculosis DNA in five different types of cutaneous lesions by the polymerase chain reaction. Archives of Dermatology 1993;129(12):1594–1598.
- 19 Tuberculosis. Statistics/Global, regional, high burden & MDR, http://www.tbfacts.org/tb-statistics.html.
- 20 Alka D, Sunil KG, Anita B, Papulonecrotic tuberculid of the glans penis-a case report Journal of Pakistan Association of Dermatologists 2005 15:285-87.
- 21 Ramesh V, Ramam M, Pahwa P, Malhotra S, The clinical presentations of penile tuberculosis Int J Dermatol 2013 52:759-61.
- 22 Merchant SA.Tuberculosis of the genitourinary system.Indian Journal of Radiology and Imaging 1993;3(4):275–286, 1993.
- 23 Baveja CP, Vidyanidhi G, Jain M, Kumari T, Sharma VK, Drugresistant genital tuberculosis of the penis in a human immunodeficiency virus non-reactive individual J Med Microbiol 2007 56(5):694-95
- 24 Narayana AS, Kelly DG, and Duff FA.Tuberculosis of the penis. British J of Urol. 1976;48,4:274-801976.
- 25 Deb S, Mukherjee S, Seth J, Samanta AB. Nodulo-ulcerative tuberculosis of the glans penis: A case report and a discussion on nomenclature of genital tuberculosis Ind J of Dermatol. 2015;60(5):506-08.
- 26 Agarwalla B, Mohanty GP, Sahu LK, and Rath RC. Tuberculosis of the penis: Report of 2 cases. J of Urol. 1980;124 (6):927-35.
- 27 Sekhon GS, Lal MM, Dhall JC, Tuberculosis of the penis. J Indian Med Assoc. 1971;56:316-18.
- 28 Merchant SA, Tuberculosis of the genitourinary system Indian J Radiol Imaging. 1993;3:275-86.
- 29 Sharma VK, Sethy PK, Dogra PN, Singh U, Das P, Primary tuberculosis of glans penis after intravesical Bacillus Calmette Guerin immunotherapy. Ind J of Dermatol. 2011;77:47-50.
- 30 Pal DK, Kundu AK, Chakraborty S, Das S, Tuberculosis of penis: Report of two cases Ind J Tuberculosis. 1996 43:203-04.
- Jordaan HF, Schneider JW, Schaff HS, Victor TS, Geiger DH, Helden PD, Papillonecrotic tuberculoid in children. A report of eight patients. Am J Dermato pathol. 1996;18(2):172-85.