

Testicular Tuberculosis—A Rare Presentation**Dr. S. Srikanth***

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Abstract: Tuberculosis is the most common granulomatous lesion in India. In spite of great advances in chemotherapy and immunology, tuberculosis still continues to be a major public health problem in the entire world, more common in developing countries of Asia. Other factors contributing to higher incidence of tuberculosis are malnutrition, inadequate medical care, poverty, crowding, diabetes and immunocompromised states. Although all organs are affected by Tuberculosis, testis is uncommon site for tuberculosis. Here we report a case of Testicular tuberculosis in a 38 years old male patient without any previous complaints.

Keywords: Testis, Tuberculosis, primary.

INTRODUCTION

Most people think tuberculosis affects only the lungs, but in reality it affects almost every part of the body. Pulmonary tuberculosis (TB) is most common type, accounting for about 70% of cases. Sometimes, pulmonary TB will spread, though this usually happens only in immune-suppressed patients and young children. Extra-pulmonary TB (EP-TB) is seen only in 10– 15% cases and lymph nodes are the most common site for EP-TB in India. Genital TB is uncommon, and testicular TB is further rare, comprising only 3% of genital TB.¹ Commonly, it occurs during disseminated TB, but isolated testicular TB is extremely rare.

Middle aged males are more commonly affected. Most of the time it mimics any testicular malignancy.

Patient may present with infertility problems also sometimes. Radiologically and sometime USG guided fine needle aspiration may help us to confirm the diagnosis. Once it is diagnosed as Tuberculosis, anti TB treatment should be followed and closely observed. Observations in different populations suggest that besides these factors, genetic factors also play a key role in innate resistance to infection with *M. tuberculosis* and in the development of the disease, which is responsible for differing degree of susceptibility to tuberculosis. However, the exact incidence of disease cannot be determined as all patients infected with *M.tuberculosis* may not develop the clinical disease and many remain reactive to tuberculin without developing symptomatic disease.

CASE REPORT

A 38 years old male patient presented with a painful right sided testicular swelling without any

ulceration or any discharging sinus. There was no history of fever, weight loss, respiratory problems. There was no history of smoking and alcohol consumption. The patient was admitted in general surgery department and on examination 2 inguinal lymph nodes were also palpable, swelling was of size 2x2.5 cm in size, firm to hard in consistency, mobile and tender. Other systemic examination was normal. His Chest X ray was normal with positive Mantoux test.

Ultrasonography was done and diagnosed it as granulomatous orchitis possibly tuberculosis of testis or any testicular tumour. Fine needle aspiration was not done for this case as the patient was not co-operative. Right orchidectomy was done and specimen was sent for histopathology. Serial sections were taken and submitted. On microscopy it was confirmed as Testicular tuberculosis, with many semeniferous tubules of varying sizes, some tubules show loss of maturation and at places show caseous necrosis along with langhans type of giant cells.

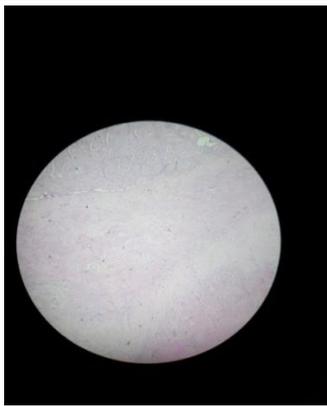


Fig-1: Showing areas of caseous necrosis with adjacent seminiferous tubules [H&E, x 40]



Fig-2: Showing areas of caseous necrosis and Langhans giant cells [H&E, x 40]

DISCUSSION

Tuberculosis (TB) is a leading cause of death worldwide, especially in the developing countries which are TB endemic zones, like India. Emergence of drug resistance TB and rapid increase in incidence of HIV infection makes the world's scenario further critical. Genitourinary TB is an unusual presentation of TB and comprises 8–15% of EP-TB [2]. Isolated genital involvement is seen in 28% patients of genitourinary TB [3]. It is more common in males. The most common site of genital TB is the epididymis in men, followed by the seminal vesicles, prostate, testis, and the vas deferens [4].

In most cases, TB epididymo-orchitis is developed from retrograde spread of tubercle bacilli from the affected urinary tract into the prostate via reflux, followed by canalicular spread to the seminal vesicle, deferent duct, and epididymis. However, TB bacilli may also gain entry via the hematogenous and lymphatic spread. In most cases, testicular involvement is due to local spread or retrograde seeding from the epididymis, and rarely by hematogenous spread. Hence, TB orchitis without epididymal involvement is extremely uncommon, which we present in this case report.

Granulomas of the testis may be caused by bacteria or fungi. Non-infectious granulomas are

morphologic evidence of the existence of cell mediated immunity to foreign or endogenous antigens. Caseating granulomas typical of *M. tuberculosis* infection and fungal infection like histoplasmosis usually contain pathogens demonstrable with special stains. The granulomas of leprosy also contain acid fast bacilli but are usually less discrete and show less necrosis. The gummas of syphilis that show a central necrotic area surrounded by epithelioid cells, lymphocytes and scattered plasma cells are usually devoid of stainable spirochetes [5].

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