



Testicular Tuberculosis: A Case Report

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Introduction

Tuberculosis (TB) is a serious public health problem in developing countries, with India bearing highest burden. According to global tuberculosis report 2016 of WHO, TB affects more than 9 million people and causes the death of 1.8 million people each year, especially in developing countries.

Extrapulmonary TB is also growing in incident most common being lymph node tuberculosis followed by pleura, bone and joints and then urogenital tract.⁽¹⁾

One of the rare forms of tuberculosis is genital TB, where in the both genders are affected.

Hematogenous or lymphatic spread is the most common form of spread, while direct contiguity with an intraabdominal or peritoneal focus does occasionally occur.⁽²⁾

In case of females' genital tract involvement frequency of tuberculosis in genital organs is as follows, fallopian tubes 90%, endometrium 50 - 60% ovaries 20- 30%, cervix 5-15%, vulva, and vagina 1%.⁽²⁾ TB epididymitis may manifest as a painful, swollen, acute infection or as abscesses and sinuses.⁽³⁾

Furthermore, males with genital tuberculosis may develop scrotal masses.⁽⁴⁾ It is believed that sexual transmission is possible because viable bacilli have been found in the semen of patients with pulmonary and prostatic Tb, and this transmission was confirmed testing the individuals via molecular methods, which revealed identical organisms isolated from a couple's endometrial biopsy and penile ulcer.⁽⁵⁾ The true incidence to genital TB is unknown. Although studies have showed that people who are suffering from Pulmonary tuberculosis, 20% have urogenital

involvement about 15-20% in developing country.^{(6) (7)}

In men with genital TB the most common site of involvement is the epididymis, followed by the seminal vesicles, prostate, testis, and the vas deferens.⁽⁸⁾

Surgical management is often reserved for cases that do not present rapid response and adequate or in those in which the suspicion of malignancy is high.⁽¹³⁾

Extrapulmonary involvement of tuberculosis with isolated epididymal involvement is very rare, and in one study its prevalence was noted in young adults⁽⁹⁾

Case Report

A 50-year-old male came with complaints of pain in abdomen region and pain in the testicular area. With associated with loss of appetite for last 1 month, weight loss approximately 2 kg in 3 months. He is not a known case of diabetes mellitus, hypertension, thyroid disorder. General examination shows patient was moderately built and nourished, vitals saturation 94% at Room air, Pulse Rate 65/minute, Blood pressure was 110/70 mmHg and Respiratory rate 19/min. Physical examination revealed swelling in the inguinal region right more than left sided, no visible peristalsis was observed over the swelling, overlying skins was normal, no impulse on coughing, position of the penis was normal consistency of the swelling was non tender and doughy. There was gross swelling of the scrotal sac but the patient was complaining of pain, skin over the scrotum appeared and freely mobile, no impulse on coughing. Left sided testis was mildly tender and increased in size, freely mobile, testicular impulse was normal. Following examination patient was advised to undergo ultrasound of the scrotum. Ultrasound revealed both testes to be normal in size and echotexture. Early bilateral inguinal hernia. There was evidence of hypoechoic lesion 27x23 mm noted in left epididymis and colour doppler showed mild vascularity suggestive of chronic infective

pathology or neoplastic lesion. There was no evidence of hydrocele.

Patient was further subjected to CECT abdomen which revealed well defined heterogeneously enhancing soft tissue density lesion in left epididymis which showed evidence of likely to be infective or neoplastic.

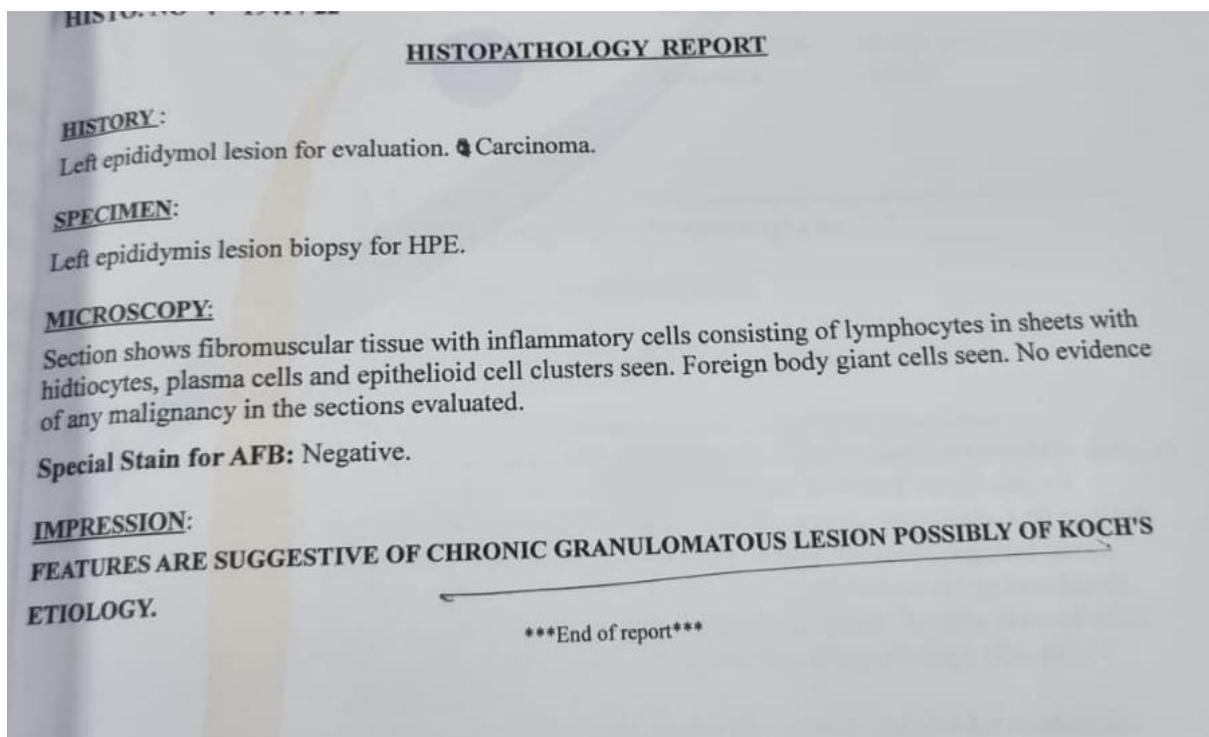
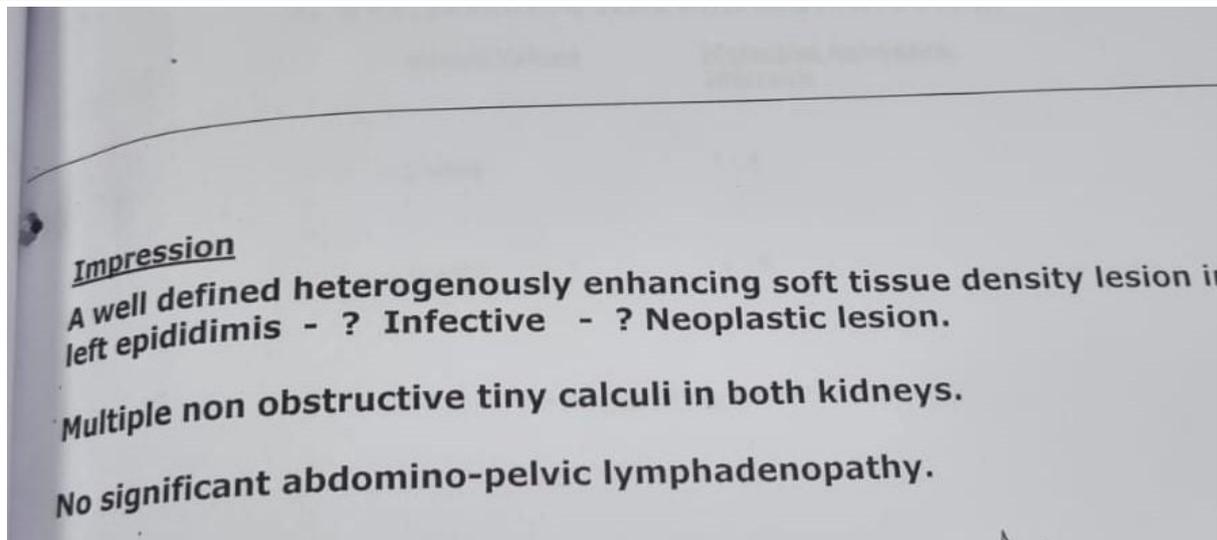
There was no significant abdomino-pelvic lymphadenopathy. Looking at the evidence patient was advised to undergo biopsy along with screening with tumour markers was done, Alpha fetoprotein and Beta HCG was negative.

Patient was taken up for biopsy for left epididymis lesion and the specimen was subjected for HPE.

On microscopy, it revealed fibromuscular tissue with inflammatory cells consisting of lymphocytes in sheets with histocytes, plasma cells and epithelioid cells clusters seen. There was no evidence of any malignancy in the sections evaluated.

The histopathology report was highly suggestive of chronic granulomatous lesion possibly of Koch's etiologic.

Based on this presentation a urology opinion was taken and patient was diagnosed to have tuberculosis with testicular involvement and patient was taken up for orchidectomy, surgery was uneventful and there after anti-tubercular treatment was initiated after baseline investigations were done. Patient was advised to continue anti tubercular treatment for at least one year.



Discussion

The incidence of Genital tuberculosis is rare form of Tuberculosis. The involvement of Genital urinary tract can vary and can have wide array of presentations as well.

Involvement can be at any level starting from the kidneys, epididymis, seminal vesicles, prostate, testis, and vas deferens.⁽⁹⁾ Most often diagnosis is incidental like in our case where in the person is suspected for malignancy like testicular teratomas and seminoma but upon workup found to have tuberculosis.⁽¹⁰⁾

Upon reviewing the literature, it was found that presentation of testicular tuberculosis is often non-specific. Some of the patient just present with testicular nodule while some suffer from constitutional symptoms like weight loss, fever, malaise etc.⁽¹¹⁾

Although the mortality associated with testicular tuberculosis is low, most worrying complication is infertility which often occurs secondary to obstruction of the spermatic flow.⁽¹³⁾

If the suspicion of malignancy is low then surgical intervention like orchiectomy may not be required.

Once the diagnosis is made, patient is usually started on Anti tuberculous treatment and response is noted. Surgical resection of testis might be required in there is no response to treatment and if the disease progress.

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