



## Asymptomatic Isolated Tubercular Mass in Epididymis with Minimal Hydrocele- An Uncommon Case Report

### KEYWORDS

tuberculosis (TB), epididymis, ITP

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### ABSTRACT

*It has been postulated that tuberculous epididymitis almost always results from a tuberculous lesion in the prostate, which is usually secondary to renal TB. Isolated tuberculous epididymitis without evidence of renal involvement is therefore rare and difficult to diagnose. We are here reporting a case of isolated tubercular mass in left epididymis without other genitourinary organ involvement. Diagnosis was made on FNAC and patient had clinical improvement with anti-tuberculosis drug*

### INTRODUCTION

Tuberculosis (TB) remains a major global health problem. According to Global TB report 2014 by WHO there were 9.0 million new TB cases in 2014 and 1.5 million TB deaths.<sup>1</sup> While, primary site of TB is lung but it may involve any other body organ as well, with or without the pulmonary involvement. Genitourinary TB accounts for up to 30% of extra-pulmonary TB, epididymal involvement account for only about 20% of genitourinary TB.<sup>2,3</sup> The most common site for male genital TB are the epididymis and the prostate, followed by the seminal vesicles and the testicles.<sup>4,5</sup> It has been postulated that TB epididymitis almost always results from a tuberculous lesion in the prostate, which is usually secondary to renal TB.<sup>6</sup> Isolated tuberculous epididymis (ITE) without evidence of renal involvement is therefore rare and difficult to diagnose.<sup>7</sup> ITE can potentially be cured by anti-TB medications if diagnosed correctly and surgical resection is usually reserved for those patients who do not respond to medical treatment.<sup>8</sup> Here we are reporting a case of asymptomatic tubercular mass in epididymis without prostate or testes involvement and diagnosis was made by FNAC of the mass and managed by daily regimen of anti-tuberculosis drugs. After six months of daily anti-tuberculosis therapy size of tubercular epididymal mass reduced significantly.

### CASE REPORT

A 22 year old, sexually active male was presented with complaints of swelling left testes since three to four months. Initially it was around peanut sized and was associated with dull ache pain. For this he was consulted with local health facility and he was prescribed some medications whose record was not available. After treatment pain was subsided but swelling continues to enlarging slowly. Patient did not complaints of any urinary symptoms including frequent voiding, dysuria or haematuria. There was no history of back, flank or abdominal pain. He does not have history of cough, fever, anorexia, weight loss and loss of appetite. Past medical history was unremarkable except past history of right cervical lymph node enlargement which was subsided with four to five days treatment from local health facility (no record available). He did not reveal any history of trauma. He is non smoker and teetotaller. He was married and has child of 18 month age. GPE and

systemic examinations were unremarkable. Examination of scrotum shows round shaped non-tender, semi-solid mass of about 5 cm to 3 cm sized located on left testes. Skin over the mass was normal and there was no discharging sinus. Haemogram was normal except raised ESR (65 mm after one hour). Blood sugar was 93 gm/dl; RFT and LFT were within normal range. Serum for HIV and HbsAg were non-reactive. Routine urine examination showed 4-5 pus cells and on aerobic culture no organism was grown. Urine microscopic examination was negative for AFB. Mantoux test was strongly positive (18 mm after 72 hour) and sputum for AFB was negative. Chest X-ray showed ill defined opacity in right lower zone (Image-1), USG of pelvic region showed bulky left epididymis with normal testes and other abdomino-pelvic organ. CECT of abdomen & pelvic region showed sub-centimetre sized intra abdominal lymphadenopathy and epididymitis with epididymal mass and minimal hydrocele. Both testes and other intra-abdominal organs were normal. (Image-2) FNAC was done under aseptic precaution which showed presence of lymphoreticular cells with numerous epithelioid histiocytes cells which was suggestive of chronic granulomatous inflammation. (Image-3) Patient was conservatively managed, with daily anti tuberculosis drugs (isoniazide, Rifampicin, ethambutol, pyrazinamide) according to body weight.

### DISCUSSION

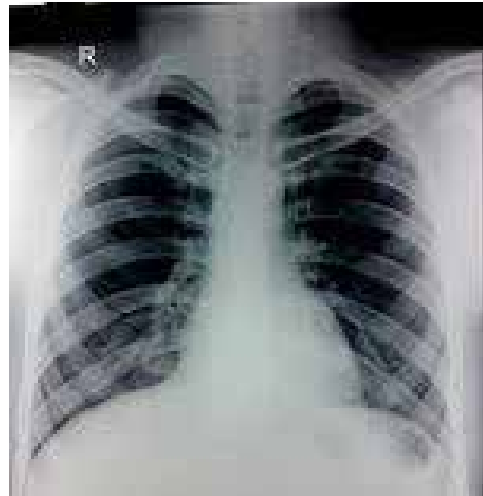
The term genitourinary TB was first introduced by Willbolz et al. ITE is more common in younger adults. In a review of 40 patients with ITE, the median age was 32 years (interquartile range, 21-37 years).<sup>9</sup> Wei-Chieh Miu et al<sup>7</sup> reported ITE in 65 years old patient. Allen Yu-Hung Lai et al<sup>10</sup> reported tuberculosis of epididymis in 78 years old man who presented as scrotal tumor. Symptoms of epididymal TB are non specific and may manifest as an acute infection, chronic infection or infertility.<sup>11</sup> Acute infection may manifest as a combined epididymo-orchitis with pain, tenderness and scrotal swelling. This may be the commonest manifestation in up to 40% cases.<sup>9</sup> the other common presentation is a scrotal or testicular mass or abscess with or without pain.<sup>12</sup> infertility may be the presenting feature in about 10% cases.<sup>9</sup> Some time it may present with symptoms such as, dysuria, frequency, haematuria, recurrent urinary infection flank pain and hemospermia if ac-

accompanied with other genitourinary organ tuberculosis.<sup>13</sup> This index case was asymptomatic except initial dull ache pain.

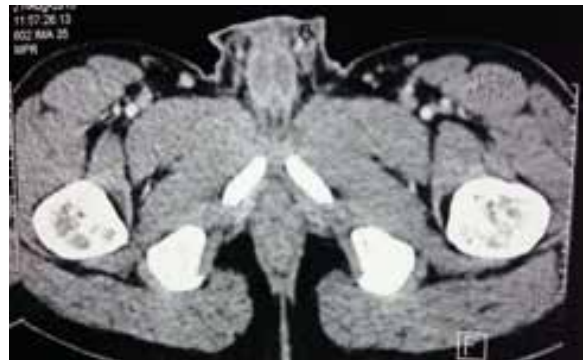
Many theories have been postulated to define the precise route of infection to epididymis. These include- (1) retrograde spread of infection from the urinary bladder<sup>9</sup>,<sup>14</sup> (2) ante-grade infections from the kidney<sup>4</sup> (3) spread via lymphatic system (4) haematogenous spread result in genital lesion with or without any renal lesion.<sup>15</sup> Female to male transmission (venereal transmission of TB) is very rare.<sup>16</sup> Active tuberculosis elsewhere in the body is found in less than one half of patients with genitourinary tuberculosis.<sup>17</sup> In the present case there was no obvious other genitourinary organ involvement and there was ill defined opacities in right lower zone suggests haematogenous spread from the inactive pulmonary focus although, patient had no chest symptoms. Diagnostic imaging findings are only consistent with tuberculous epididymitis but not diagnostic.<sup>7</sup> however, scrotal ultra-sonography, CT scan and Magnetic resonance imaging of the area are necessary to reveal the extent of GU system involvement (primarily to exclude kidney involvement). Imaging studies may show diffuse or focal heterogeneous lesion in enlarged epididymis, with or without hydrocele, septation, extra-testicular calcification, scrotal abscess, which are also common findings of other chronic inflammatory processes and testicular tumor.<sup>7</sup> USG and CECT scan of the abdomen and pelvic organs revealed left epididymal mass with minimal hydrocele in our case. A positive culture or histological analysis of biopsy specimen, possibly combined with PCR is required for a definitive diagnosis of genitor-urinary TB.<sup>18</sup> Because of paucibacillary nature of lesion, apportioning of the sample for other tests (histology, biochemical analysis, microbiology and PCR), and resource limitation, the definitive diagnosis could not be obtained, so it is necessary to perform comprehensive evaluation including histology, cytology, microbiological investigations and further follow up to get diagnosis. Until now, fine needle cytology or the surgical removal of the affected area was the cornerstone for the diagnosis of ITE.<sup>19</sup> Viswaroop BS et al<sup>9</sup> reviewed the forty cases of isolated tubercular epididymitis and they were able to establish the diagnosis by FNAC in 26 (65%) patients, among them five required a repeat FNAC for confirmation, in nine other men epididymal biopsy established the diagnosis. Diagnosis of isolated epididymis in our case was based on clinic-radiological suspicion followed by cytological demonstration of chronic granulomatous lesion which is further supported by strong positive mantoux test. ITE is potentially curable with anti-tuberculosis medications, with a combined oral regimen of Rifampicin, Isoniazide, Ethambutol and Pyrazinamid given daily. The suggested duration of therapy varies from 2 months to 2 years,<sup>6, 8</sup> although a regimen of 9-12 months is generally accepted.<sup>7</sup> However; some authors recommended surgical intervention if there is no sign of resolution within 2 months or of an intra-scrotal abscess is identified. Intra-urinary Rifampicin injection has been suggestive as an effective alternative therapy that may enable the side effects of oral therapy to be avoided. Surgical treatment should be reserved for those cases which do not respond to anti-TB treatment or when complications like intra-scrotal abscess or severe upper urinary infection are present.<sup>21</sup> We managed our case by anti-TB drugs according to body weight on daily basis regimen. After 6 month of therapy, there was marked improvement in the size of the mass.

## CONCLUSION

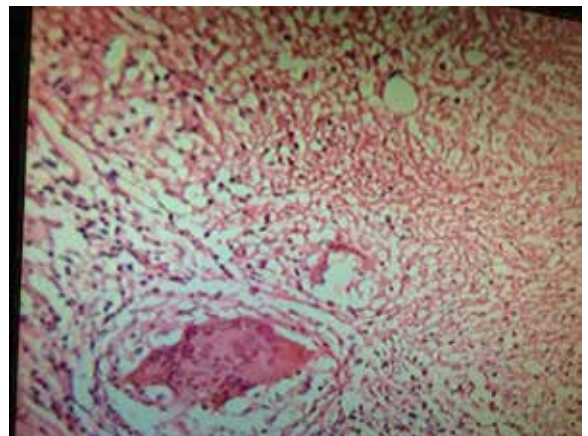
Tuberculosis of epididymis may present as an isolated mass which can mimic testicular carcinoma. Physician should be aware of this type of extra-pulmonary presentation so that they can work up for tuberculosis in order to avoid and unnecessary orchectomy as tuberculosis gives good clinical response to antituberculosis drug.



**Chest X-ray showed ill defined opacity in right lower zone**



**CECT pelvis showed bulky left epididymis (arrow) with heterogeneous contrast enhancement suggestive of epididymal mass**



**Photomicrograph revealed granulomatous collection of inflammatory cells with Langhans giant cell.**

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