

Association of GUTB and Tubercular inguinal lymphadenopathy - A rare co-occurrence.

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Abstract : Here we present a rare combination of GUTB with B/L inguinal lymphadenopathy in a 55y old male patient presented with pain right flank , fever & significant weight loss for the last 3 months. Per abdomen examination revealed non-tender vague lump in right lumbar region about 5x4cm dimensions , with B/L inguinal lymphadenopathy, firm, matted . Investigations revealed low haemoglobin count, high leucocytic & ESR count , urine for AFB was positive and ultrasound revealed small right renal & psoas abscess , which on subsequent start of ATT , got resolved and patient was symptomatically improved .

I. Introduction

Genitourinary tuberculosis (GUTB) is the second most common form of extrapulmonary tuberculosis after lymph node involvement [1]. Most studies in peripheral LNTB have described a female preponderance, while pulmonary TB is more common in adult males [2]. In approximately 28% of patients with GUTB, the involvement is solely genital [3]. However , the combination of GUTB and LNTB is rare condition. Most textbooks mention it only briefly. This report aims to present a case of GUTB with LNTB in a single patient.

II. Case Report

55y male with no comorbidities , having pain right flank & fever X 3months. There was significant weight loss & loss of appetite present. Abdomen examination revealed an ill defined, vague lump, size 5x4cm, palpable in right lumbar region. External genitalia revealed no abnormality, but there were bilateral inguinal lymphadenopathy, non-tender, firm & matting of lymph node was present (figure 1). Digital rectal examination including proctoscopy was normal. On clinical investigations, patient was found to have severe anemia (Hb=6.5) , counts-13000 , ESR-120, urine examination & culture – both normal , urine for AFB – 2 out of 5 samples were positive for mycobacterium , urine PCR- negative, chest radiography revealed no abnormality, FNAC from bilateral inguinal lymph nodes showed some epithelioid cells granuloma, AFB stain negative , suggestive of tubercular lymphadenopathy, sonography abdomen- 1.8 X 2.2cm collection present at upper pole of right kidney & 4.2 X 2.9cm abscess seen in right psoas. Contrast CT abdomen (figure 2) showed right psoas muscle bulky with collection in it & in perinephric area. Left kidney was normal. No retroperitoneal lymphadenopathy seen . Patient was started on 4 drug anti-tubercular drugs in the form of Isoniazid, rifampicin, ethambutol & pyrazinamide , according to weight of the patient. After 1 month of start of ATT , patient improved symptomatically & he gained weight . Liver function tests were in normal range , urine for AFB all 5 samples were negative. At 2 months of start of ATT, CT scan abdomen with urography done (figure 3) , which showed a wedge shaped hypoattenuated area of size 2.4 X 1.7cm in lower pole cortex of right kidney with minimal perinephric fluid collection . After 4 months of start of ATT, patient recovered fully with appetite returning to normal, LFT & sonography were normal, size of inguinal lymph nodes gradually decreasing in size (figure 4) . Patient developed gynaecomastia of right breast (figure 5) , which subsided subsequently at the time of discontinuation of ATT at the end of 1 year.

III. Discussion

GUTB is still a major health problem in many developing countries including India. Urogenital tuberculosis affects all age ranges, with predominance of males between the ages of 30 and 50 years [4]. Our patient was a 55y old male. The combination of GUTB & LNTB is extremely rare co-incidence . During search for literature, I could not found any article in which both areas are simultaneously involved. Even primary superficial tuberculous lymphadenitis of the groin is a rare condition. It has been noted that in 25% to 30% of cases, diagnosis of GUTB is established based on histological patterns and/or by detection of Mycobacterium tuberculosis complex by PCR [5]. In 1940 Thompson [6] reported 324 cases of peripheral lymphadenitis due to tuberculosis, of which 12 showed involvement of the inguinal area. In 4 of the 12 cases (33%) -a surprisingly high figure-the inguinal involvement appeared alone. Of the remaining eight patients the

right side was involved in six and the left in four; in two patients the involvement was bilateral. In 1953 Gale [7] reported on 194 cases of superficial lymphadenitis; 17 (8%) of these involved the inguinal area. The involvement of kidneys, prostate & testis is primary, while rest other areas are involved secondarily by mycobacterium transferring or directly invading to other urogenital organs. From kidney, infection can enroute to para aortic & paracaval lymph nodes .Rarely, infection from these retroperitoneal nodes spreads in a retrograde manner to pelvic lymph nodes & from there to inguinal lymph nodes.Also, one can expect involvement of genitor urinary organs & inguinal lymph nodes as both primary infection or more rarely perispinous/psoas abscess occasionally points to groin of one or both sides [9], as in our index case . In cases of involvement of lymph node, in a study of "Survey Of Tuberculosis In The Province Of Ontario" By Lawee & Toronto[9] In 1965, Out Of 56 Cases Of Tubercular Lymphadenitis, 52 Were Having cervical lymphadenopathy, 1 mediastinal, 2 axillary & 1 inguinal. Kidney involvement commense at level of cortex with formation of micro abscesses , which coalesce to form large abscess & ultimately it burst outside into perinephric space & inside to involve pelvic calyceal system. It is then AFB are detected in urine. Ususlly, renal involvement is unilateral [8] & generally without evolution to irreversible renal failure. The involvement of the urinary tract can be insidious & progress slowly to caseation with ureteric strictures. None of us have seen such a unique case of tubercular involvement of genitourinary tract with lymphatic system . So, we thought that reporting such a case is desirable so that we should be able to know how this infection is going to be a systemic illness , if left untreated.

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GUTB Figures

Figure 1



Rt. Ing. LAP, matted



Figure 2



Figure 3



- Hypodense lesion lower pole cortex.

Figure 4



Left ing. LAP
after 4M ATT



Figure 5



After 5M of ATT

- Rt. Gynaecomastia, possibly due to INH.