



AN ABDOMINAL INFECTION SIMULATING MALIGNANCY : A CASE REPORT

Obstetrics & Gynaecology

Varsha Konyala* House Surgeon, Department of Obstetrics and Gynaecology, JSS Medical College, Mysuru. *Corresponding Author

Poornima M Associate Professor, Department of Obstetrics and Gynaecology, JSS Medical College, Mysuru.

ABSTRACT

Tuberculosis is notorious for its affliction to the lungs. However, one mustn't forget the case burden that extra pulmonary TB imposes. Here we present a case of a middle aged woman who came with non specific complaints per abdomen. Her abdominal pain, discomfort, loss of weight and appetite along with clinical examination and investigations pointed towards malignancy. On surgical exploration and histopathological examination, the case was confirmed as that of abdominal TB. Tuberculosis of the abdomen is one of the extra pulmonary sites where tubercular bacilli can reside. In such cases, apart from treating tuberculosis medically with anti tubercular therapy, one must also order a chest X-ray to identify any pulmonary foci of tuberculosis. This is to curb any potential spread of infection. Further, one must look acutely at cases with non specific findings and consider TB in the differential diagnosis, particularly if the patient hails from a TB endemic region. With a keen eye for tuberculosis along with corroborative and relevant investigations, one can diagnose this chronic illness and put patients well on the road to recovery.

KEYWORDS

Ascites, Abdominal Tuberculosis, Diagnostic Laparoscopy, Ovarian Malignancy, CA-125.

INTRODUCTION

India stands first globally for the most number of tuberculosis (TB) cases.^[1]

TB has an affliction for the lungs, but extra-pulmonary TB too, is a significant contributor to the case burden. Extra Pulmonary TB (EPTB) includes infection of pleura, lymph nodes, genitourinary tract, meninges and the peritoneum to name a few.^[2] Abdominal TB is an all encompassing term, which may include tubercular disease of the gastrointestinal tract, the overlying peritoneum, solid visceral organs and the lymph nodes. It accounts for about 12% of EPTB.^[3] It has the propensity to mimic other abdominal pathologies, especially malignancy as was the case in our patient which prompts us to report it.

CASE STUDY

A 37 year old female with no comorbidities came with complaints of lower abdominal pain and discomfort since 7 months, which was associated with nausea. It was not associated with vomiting, constipation, tenesmus or burning micturition. In the past month, she has experienced an appetite loss as well as a 3kg weight loss. Patient gave no history of fever, night sweats. Her menstrual and obstetric history is unremarkable, with Para 2 and Living 2, with previous Lower segment Cesarean Section (LSCS). There is no history of previous TB, contact with a known TB case. Family history is positive for uterine cancer in her paternal grandmother. Her vitals were stable and within normal limits. On local examination, the abdomen appeared symmetrical, with no stretching of the skin. The umbilicus was central and inverted. A transverse scar was noted owing to prior LSCS. Abdominal examination revealed shifting dullness significant of moderate amounts of free fluid in the peritoneal cavity. On per vaginal examination, the cervix was found to be firm and deviated to the left side. The uterus was found to be anteverted, of normal size, regular, mobile and non tender. Free fornices were appreciated.

INVESTIGATIONS AND MANAGEMENT

- Complete blood count: Patient was mildly anaemic.
- Serum CA-125 was elevated: 358 U/L
- Serum CEA: Normal.
- Beta-HCG: Normal.
- USG abdomen and pelvis showed the presence of an ovarian cyst with internal septations about 4.6x4.5 cms in the right adnexa. Moderate amounts of free fluid were appreciable in the peritoneal cavity. Bilaterally thickened fallopian tubes were also noted.

MRI with contrast of the abdomen and pelvis confirmed USG findings, further depicting a chronic involuting hemorrhagic cyst in the right ovary. The cyst was a well defined T2 weighted hyperintense structure with a T2 weighted hypo intense rim measuring about 2x1.4x1.8 cms. Thin internal septations and T2 shading were observed in the dependent region of the cyst. Moderate quantity of ascites with

enhancing and thickened parietal peritoneum was seen. Mesenteric edema was noted.

Diagnostic peritoneal tap yielded exudative fluid with 99% lymphocytic cells. Screening for Mycobacterium TB was negative.

Patient underwent a diagnostic laparoscopy and anterior abdominal wall tissue sampling was done for histopathological examination. Intra-operatively, extensive tubercles were present adhering to the wall of the abdomen. Bowel loops were matted and moderate ascites was confirmed. Fallopian tubes were congested and adherent to the posterior surface of the uterus forming a tubo-ovarian mass. Histopathological examination showed numerous epithelial granulomas, Langhans and foreign body giant cells as well as foci of necrosis. These findings allowed us to clinch the diagnosis of Abdominal Tuberculosis.

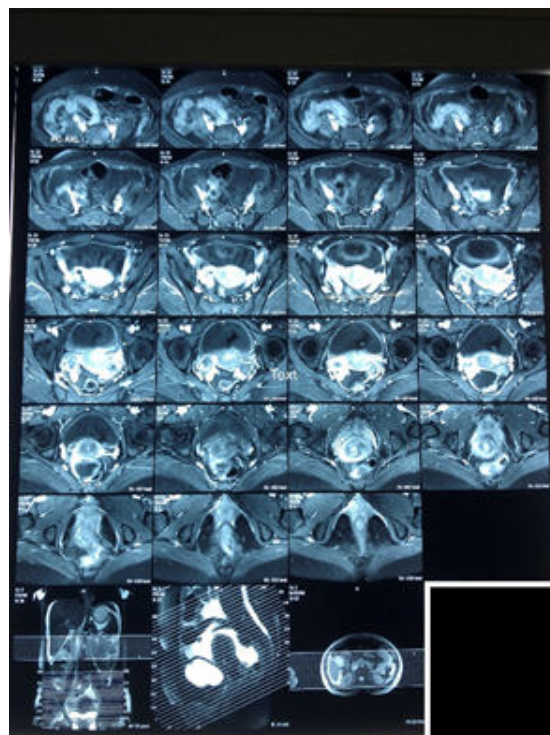


Figure 1: MRI contrast of the Abdomen and Pelvis showing moderate ascites as well as thick parietal peritoneum, mesenteric edema.

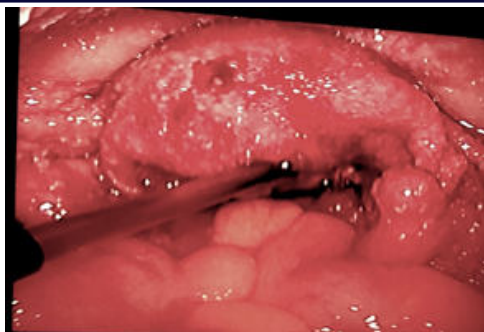


Figure 2: Intra-operative findings of Diagnostic Laparoscopy :Extensive tubercles adherent to the abdominal wall.

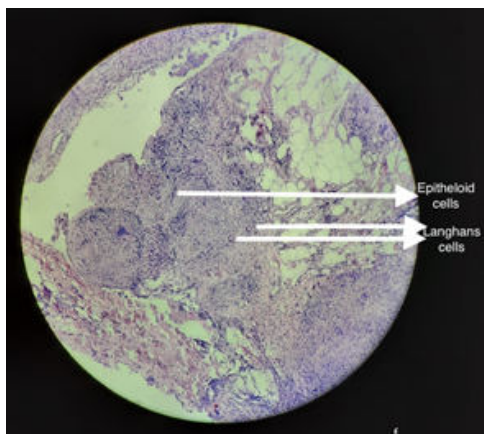


Figure 3: Histopathological slide showing Epithelioid cells and Multiple Lanhans cells indicative of Tuberculosis.

DISCUSSION

The causative agent of TB is *Mycobacterium tuberculosis* and rarely, *Mycobacterium bovis*.

Tubercular bacilli can reach the peritoneal cavity in various ways: hematogenously or via lymphatic routes from distant foci, contiguously from adjacent foci, ingestion of material infected with tubercular bacilli.^[4]

Although there isn't a consensus on gender predilection in TB abdomen, it largely affects people in the 2nd and 3rd decades of life.^[2]

Abdominal TB, is difficult to diagnose clinically and requires corroborative evidence as well as a keen eye. It is broadly of 3 types:

1. Wet ascitic type characterised by protein rich ascitic fluid
2. Fibrotic fixed type which is associated with adhesions of the bowel with the neighbouring omentum and mesentery.
3. Dry plastic type which is a manifestation of an inflammatory response to the bacilli in the form of nodules and adhesions along the peritoneum.

A combination of these varieties is most often observed rather than a strict type as seen in our case.^[5] Pain abdomen, significant weight loss are the most common features. Distended abdomen with mild to moderate ascites, wasting, loss of appetite, fever and increased levels of CA-125 (around 358 U/L) are others.^[3,5] These features overlap considerably with features of malignancy of the ovary, colon locally and metastatic cancers as well and can cause delay in diagnosis especially in women. Other findings include an abdominal mass, elevated ESR, and mild to moderate normocytic/microcytic hypochromic anaemia.^[3]

Radiological investigations must include a chest X-ray to rule out concurrent pulmonary TB. An ultrasonogram of the abdomen and pelvis has been known to show tubo-ovarian masses, omental and peritoneal thickening and in a large majority of cases, ascites.^[3,6]

A CT scan or an MRI too can be undertaken for better visualisation of the pathological changes.

In women, the elevated CA-125 can mislead to think ovarian

malignancies, but one must be aware that CA-125 tends to rise in benign diseases such as PID as well. Other supportive evidence includes analysis of ascitic fluid, which yields exudative fluid with predominant lymphocytic cell counts in cases of TB. ADA levels in the ascitic fluid too could be markers of TB, especially in an endemic region. Diagnostic laparoscopy is the last resort in cases of unclear clinical signs and investigations.

CONCLUSION

Tuberculosis of the abdomen is a medically treatable condition with several cases requiring only anti tubercular therapy. In a nutshell,

1. Tuberculosis must be considered a differential in a TB endemic country as it has many non specific signs and symptoms.
2. A concurrent Pulmonary tuberculosis must be suspected in all cases of EPTB.
3. An elevated CA-125 should raise suspicion of not only malignancy but benign disease as well.

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