

## Case Reports

# Unusual presentation of Abdominal TB: A Case Report

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### Abstract:

*Abdominal TB is an increasingly common disease that poses diagnostic challenges, as the nonspecific features of the disease which may lead to diagnostic delays and development of complications. Tuberculosis can involve any part of the gastrointestinal tract and is the sixth most frequent site of extrapulmonary involvement. A 30 years old lady mother of two children was present with a right large complex adnexal mass with huge ascites diagnosed as a case of abdominal tuberculosis is reported. She had a past history of abdominal TB on 2010 and treated by antitubercular drugs for 6 months ( 4 drugs for 2months and 2 drugs for 4 months regimen). This time she was managed jointly by Gynaecological, Surgery and Medicine department. As she was present with a right large complex adnexal mass with huge ascites which distressed her. So judicious decision was taken for her including both surgical and medical management.*

**Key words:** Abdominal TB, Extrapulmonary.

### Introduction:

TB is a life threatening disease which can virtually affect any organ system (1). A high index of suspicion is an important factor in early diagnosis. The primary site of TB is usually lungs. From which it can get disseminated into other parts of the body. The other routes of spread can be contiguous involvement from adjacent tuberculous lymphadenopathy or primary involvement of extra pulmonary organ. The diagnosis of extrapulmonary TB can be difficult as it present with nonspecific clinical and radiological features, so requires high degree of suspicion for diagnosis.

The abdominal TB which is not so commonly seen as pulmonary TB , can be a source of significant morbidity and mortality and is usually diagnosed late due to its nonspecific clinical presentation(2). Approximately 15-25%of cases with abdominal TB have concomitant pulmonary TB (3,4). The abdominal TB usually occurs in 4 forms: Tuberculous Lymphadenopathy, Peritoneal TB, GI TB and visceral TB involving the solid organs. Usually a combination of these findings occurs in any individual patient. Generally, CT appears to be the imaging modality of choice in the detection and assessment of abdominal TB.

### Case Report:

A 30 yrs old lady, para 2(cs)+0 normotensive and nondiabetic hailing from Joydebpur, Gazipur admitted at Mugda Medical College Hospital on 15.01.17 as a case of right large complex adnexal mass with huge ascites. She had no complaints of cough and weight loss but had low-grade fever. On physical examination, she was mildly anaemic, her abdomen was distended, both flank full, umbilicus is centrally placed and everted, shifting dullness and fluid thrill positive. Pervaginal Examination – a large mass was felt through right and posterior fornix size about (10×5 cm). There was a past history: Her second C/S was done on 2010. At that time, her wound was infected and secondary stitch was given after 15 days. Again, wound was infected and healed by only dressing at 40<sup>th</sup> (POD). After one and half month, she developed abdominal discomfort and diagnosed as a case of abdominal tuberculosis and she was treated by anti-TB drugs for 6 months (2 months and 4 months regimen).

### Her investigations shows:

\*Hb % – 10gm/dl ESR-72mm at 1<sup>st</sup> hour WBC-7480/cmm \*Blood group – B(+ve) \*S. creatanine – 0.6 mg/dl \*RBS – 5.2 mmol/L \*S. Albumin – 4.29

gm/dl CA – 125: 155 u/l CXR – Normal IVU – Normal excretion of both kidney. A Persistent smooth indentation is seen at left-lateral wall of urinary bladder. Most likely due to pelvic mass.

USG findings: A large multiloculated cystic lesion having small thick walled nodular component measuring about 11.2× 6.1cm is noted in right adnexal region. Huge ascites. Peritoneal fluid cytology: D/C- Neutrophil -2% Lymphocyte-98% Adenosine deaminase(ADA) -50u/l Genexpart for detection of mycobacterium TB- detected. AFB- not found.

CT scan of abdomen: Large right ovarian complex mass. Huge ascites. Cyst wall histopathology- corpus luteum cyst.

MANAGEMENT: This patient managed jointly by Gynaecology, Surgery and Medicine department. After proper counseling her laparotomy was done on 26.01.2017 under general anaesthesia by giving a midline incision. Findings were dense adhesion with intestines and omentum. Strenuous ascitic fluid came out and taken for cytological study. There were huge tubercle on intestines, peritoneum, omentum, undersurface of diaphragm and surface of ovary. Biopsy was taken from small intestine. There was huge encysted cyst which was punctured. Tubes and left ovary healthy and preserved. Right ovarian cystectomy was done. Exploration was done undersurface of diaphragm, liver and stomach. After proper haemostasis abdomen was closed in layers and drain tube kept in situ. Her postoperative period was uneventful and she was discharged on 5<sup>th</sup> POD. She has been advised to consult with medicine specialist for anti TB treatment. She was followed up by Gynaecology and Medicine department and she was doing well.



**Fig.-1:** Showing numerous tubercles on intestine

### Discussion:

TB has become a resurgent global problem with increasing numbers of immunocompromised patients, largely related to the global acquired immunodeficiency syndrome pandemic. The spread of the disease is further aided by poverty, overcrowding and drug resistance. Abdominal TB rates are rising, consistent with the overall trend. Nonspecific features of the abdominal TB result in difficulty in establishing a diagnosis. There are several ways by which TB can involve abdomen. Firstly, the tubercle bacilli may enter the intestinal tract through the ingestion of infected milk or sputum. The second pathway is haematogeneous spread from tubercular focus from elsewhere in the body to abdominal solid organs kidneys, lymphnodes and peritoneum. The third pathway includes direct spread to the peritoneum from infected adjacent foci including the fallopian tubes or adnexae. Lastly it can spread through lymphatic channels from infected nodes. Early diagnosis and initiation of anti TB therapy and surgical treatment are essential to prevent morbidity and mortality as it is a treatable disease. Most of the patient respond very well to standard anti TB therapy and surgery is required only in a minority of cases.

The diagnosis of abdominal TB is usually made by adequate radiological and histopathological studies. The methods of biopsy include endoscopic gastrointestinal mucosal biopsy, image guided percutaneous biopsy, endoscopic and USG guided biopsy and surgical biopsy. The caseation necrosis in granulomas is the histologic hallmark of TB. Hematologic findings are non specific and include increase ESR anaemia and hypoalbuminaemia. The tubercular ascitic fluid has protein > 3 gm/dl, with a total cell count 150-4000 / microlitre and consist predominantly lymphocytes. The ascitic fluid to blood glucose ratio is > .096 and serum ascitic albumin gradient is < 1.1 gm/dl (5) The yield of organism on smear and culture is low. AFB is positive in < 3% of cases and positive culture is seen in only 20% cases. Ascitic fluid ADA level are elevated in TB ascites, serum ADA level above 54u/l, ascitic fluid ADA level >36u/L and an ascitic fluid to serum ADA ratio > 0.98 are suggestive of TB (6). The sensitivity and specificity increased by combining ascitic fluid ADA and interferon –gamma assay(7). The various radiological studies are used for the diagnosis of abdominal TB

includes USG, CT, MRI and barium studies. Our presenting patient had mild anaemia, increased ESR 72 mm at 1<sup>st</sup> hour, ascitic fluid shows total cell count 1500/ microlitre and lymphocyte 98%, protein 6gm/dl, ADA level 50u/l and MTB detected by Genexpert. she was taking four drugs regimen anti TB therapy for two months and two drugs regimen for four months . she was better and no complaints and followed up by Gynaecology and Medicine department.

#### **Conclusion:**

Abdominal TB can be of various forms like peritoneal TB, tuberculous lymphadenopathy, gastrointestinal TB and visceral TB. The symptoms of abdominal TB can be non specific. Various imaging features and radiological signs are useful in making a diagnosis of abdominal TB. A high degree of clinical suspicion is required to make a diagnosis of TB in those areas which are not commonly involved. Various molecular and immunological techniques are increasingly used for rapid diagnosis in suspected cases of abdominal TB. Abdominal TB is generally managed with medical therapy with anti TB drugs and surgery are usually conservative and are done only if absolutely indicated.

The reported case was managed with medical therapy on 2010 but relapse occurred on 2017. She presented with large right adrenal mass with huge ascites. Repeated ascitic fluid aspiration does not reduce the distress. A joint management involving department of Gynae, Surgery and Medicine with both surgical and medical treatment provided better outcome.

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