

Case Report

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Curious Case of Acute Abdomen

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ABSTRACT

A 35 year old male bank employee by profession presented with c/o pain in abdomen with abdominal distension and fullness since last 4 weeks. Intensity of pain had increased over the past 15 days. He had a history of fever intermittently for the past 3 months for which he had been taking medication initially. Off recent fever started subsiding even without medication. He complained of anorexia and weight loss over these 3 months.

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Introduction

Tuberculosis has become a public health problem not just in developing countries but also worldwide [1]. Peritoneal tuberculosis constitutes 4-10% of all patients with extra pulmonary tuberculosis and has been estimated to occur in 0.1 to 3.5 % of patients with pulmonary tuberculosis [2]. Abdominal TB can infect any part of the gastrointestinal tract including the peritoneum and the pancreatobiliary system with Mycobacterium tuberculosis. Clinical manifestations are nonspecific, frequently mimicking other abdominal diseases such as inflammatory intestinal disease, advanced ovarian cancer, deep mycosis, Yersinia infection and amebomas [3]. Most patients (80–95%) have abdominal pain, 40–90% fever, 11–20% diarrhea and constipation, and 40–90% weight loss, anorexia and malaise.

Peritoneal TB occurs in three types:

- The wet type, most common presents with ascites
- The dry type associated with adhesions
- The fixed fibrotic type with abdominal loculated ascites, omental thickening and matted bowel loops

A combination of these types may also occur [4].

Case Report

A 35 year old, thin built, male bank employee by profession, with no past significant medical comorbidities, presented with complaints of pain in abdomen with abdominal distension and fullness since last 4 weeks. Intensity of pain had increased over the past 15 days. He had a history of fever on and off for the past 3 months for which he had been taking medication initially and recently fever started subsiding even without antipyretics. The fever was intermittent and low grade. He complained of anorexia

and weight loss of around 10 kgs over these 3 months. He had no history of chronic cough. His sputum AFB was on negative. His labs were normal except for mildly raised SGPT, SGOT.

On Examination

Patient was thin built, afebrile with stable vitals. His abdomen was soft and markedly distended with shifting dullness present. There was mild generalised tenderness all over the abdomen and bowel sounds were feebly heard.

Intra Operative Finding

Diagnostic Laparoscopy was planned for the patient 2 ports were inserted in all

Findings:

1. Severe peritoneal adhesions seen (Figure 1)
2. Gross Ascites (Figure 2)
3. Loculated ascites (Figure 3)
4. Adherent Liver (Figure 4)

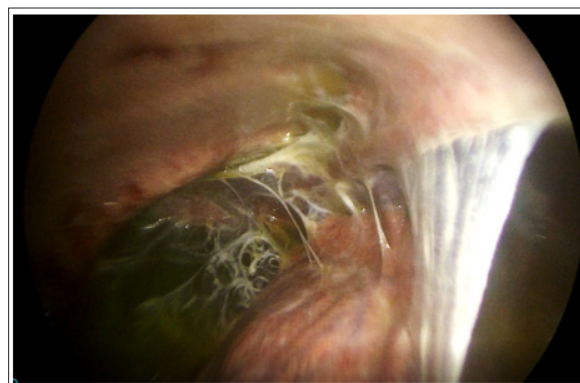


Figure 1: Peritoneal Adhesions

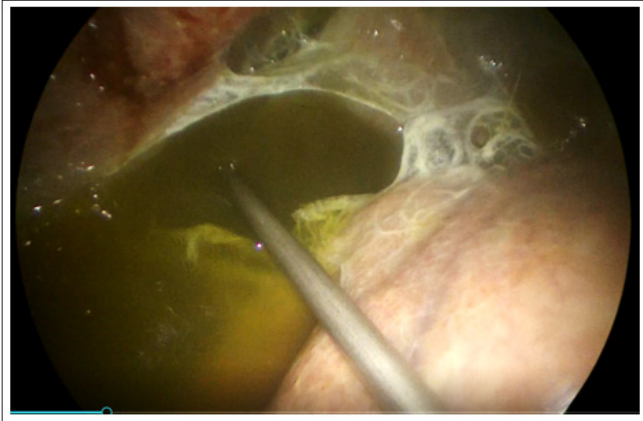


Figure 2: Frank Ascites



Figure 5: Aspirated Peritoneal Fluid



Figure 3: Loculated Ascites



Figure 6: Separation of Adhesion Over Liver and Liver Biopsy for Hpe

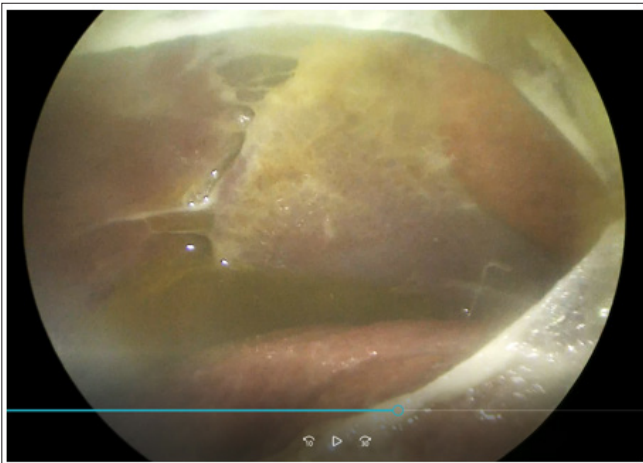


Figure 4: Adherent Liver

1.5-2 litres of fluid aspirated from peritoneal cavity (Figure 5)
Biopsy from Peritoneal deposits taken and sent for hpe
Liver biopsy taken (Figure 6)

Histopathology

Peritoneal biopsy for histopathological examination suggested Tuberculous peritonitis. (Figure7)

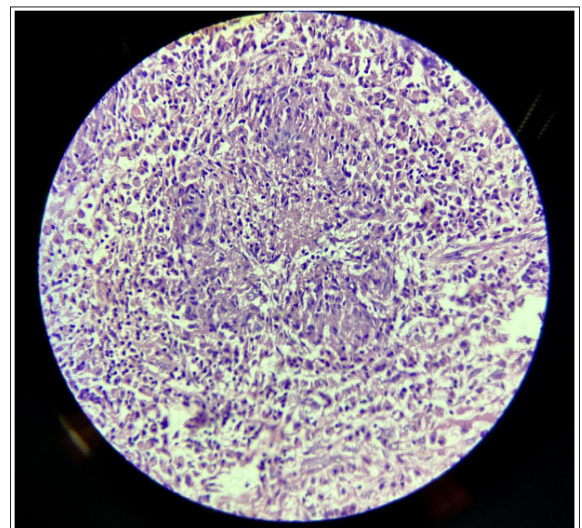


Figure 7: Granuloma on Peritoneal Hpe

Liver biopsy - Sections reveal subcapsular fragment of liver parenchyma with preserved lobular architecture and cord pattern. Loose strips of fibrinous material and collagenous tissue containing small epithelioid granulomas are also detected. (Figure 8)
No malignancy.

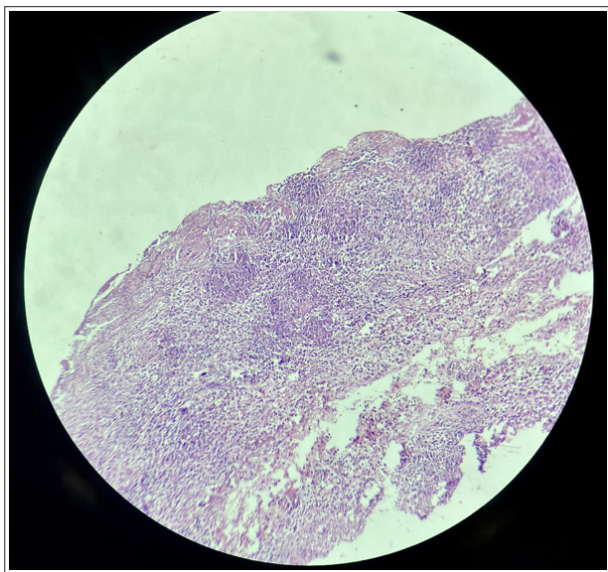


Figure 8: Liver Biopsy showing Small Epithelioid Granulomas

The reports of Adenosine Deaminase (ADA) levels of Ascitic fluid came out to be 38.7 units / litre.

Discussion

In the literature it is noticed that, in various cases of tuberculosis, patients have varied symptoms like cavitations in the lung or appearance of pulmonary foci. In patients with peritoneal tuberculosis there are other comorbidities like immunocompromisation, cirrhosis, renal failure, diabetes mellitus, and malignancy. In this case, there were no symptoms other than ascites, no pulmonary complaints, no encounter with any tuberculosis patient, no pulmonary foci in the chest X-ray or physical examination, and also there were no other medical conditions which can be helpful to suspect tuberculosis.

This tuberculosis case is very difficult to distinguish from abdominal malignancy cases [5]. Symptoms can be similar, for example, weight loss, fever, abdominal pain, and abdominal swelling. CA125 levels can be high in both these cases [6]. Moreover, radiological imaging of abdomen is very similar in both these cases such as ascites, nodular irregularities in the peritoneal surface, adnexal and fallopian masses, and septated and multiloculated ovarian cysts.

Although identification of mycobacteria in any material is the gold standard method to evaluate tuberculosis, negative AFB results cannot exclude the diagnosis of tuberculosis. Activity of ascitic fluid adenosine deaminase (ADA) has been proposed as a useful test for abdominal tuberculosis cases. In countries with a high incidence of tuberculosis, measurement of ADA may be a helpful screening test [7]. Measurement of adenosine deaminase (ADA) in ascites fluid has been studied as a useful non-culture method of detecting peritoneal tuberculosis. A recent meta-analysis of 12 prospective studies, including 1201 subjects, found that ADA levels had high sensitivity (100%) and specificity (97%) by using cut-off values between 36 and 40 IU/L; the optimal cut-off value was 39 IU/L [8,9].

Conflict of Interest

None

Conclusion

This was a case of wet along with fixed fibrotic type of peritoneal tuberculosis with raised ADA levels of the ascitic fluid which presented as a case of acute abdomen. The diagnosis of peritoneal tuberculosis is usually made by histology of biopsy material which reveals granuloma. Anti Tubercular treatment was started for this patient and he improved symptomatically. Peritoneal tuberculosis is an important differential diagnosis to be considered in a case of Acute Abdomen.

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