Journal of Applied Health Sciences and Medicine, 5(12):6–9, 2025. DOI: 10.58614/jahsm5122

Journal of Applied Health Sciences and Medicine

Journal homepage: https://www.jpub.org/journal-details.php?journal-id=39

Case Report

Peritoneal Tuberculosis Mimicking Ruptured Tubal Ectopic Pregnancy: A case report

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Article Info

Keywords: *Tuberculosis, Ectopic pregnancy, Peritoneal tuberculosis, Abdominal tuberculosis, Pyoperitoneum, Disseminated tuberculosis.*

Received: *15.11.2025;*
Accepted: *30.11.2025;*
Published: *06.12.2025*

1. Introduction

India is among the top 8 countries accounting for more than two-thirds of global TB cases as per the Global TB Report. Total of 1.6 million people died from TB in 2021 (including 187 000 people with HIV). As per Global TB report 20222, TB was the 13th leading cause of death and the second leading infectious killer after COVID-19 (above HIV/AIDS). Extrapulmonary TB (EPTB) constituted 16% of notified TB cases [1].

Abdominal TB is among the common sites of extrapulmonary involvement. Abdominal TB can usually be classified into 4 forms: luminal, peritoneal, nodal, and visceral involving the intra-abdominal solid organs [2]. The most common form is luminal (ileocecal area) [3]. The clinical presentation of abdominal TB depends on the site of infection. Patients with abdominal tuberculosis have a wide range and spectrum of symptoms and signs and the disease is therefore a great mimic. Abdominal pain, diarrhoea, bleeding from the luminal tract, intestinal obstruction, fever, and weight loss are frequent features of intestinal TB; ascites and abdominal distension are common manifestations of peritoneal TB [4].

The diagnosis and management of abdominal TB is challenging as the disease is usually paucibacillary with a low yield of microbiological tests and it mimics many conditions closely, resulting in diagnostic confusion [5, 6]. Only a few cases of peritoneal tuberculosis in pregnancy have been reported in the literature. We report a rare case of peritoneal tuberculosis mimicking ruptured tubal ectopic pregnancy.

How To Cite: G.K. Rai, N. Aggarwal, S. Gupta, V. Vidyasagar. Peritoneal Tuberculosis Mimicking Ruptured Tubal Ectopic Pregnancy: A case report. *Journal of Applied Health Sciences and Medicine*, 5(12):6–9, 2025. https://doi.org/10.58614/jahsm5122

2. Case Details

A 20-year-old woman presented in emergency department with complaints of pain in right lower abdomen and vomiting for 3 days. The patient was a primigravida with history of taking medical termination of pregnancy pills from a local pharmacy 14 days back after missing period for 2 days. Urine pregnancy test was positive. There was no history of getting an obstetric ultrasound done prior to taking MTP pills. The patient had bleeding per vaginum for 7 days after taking MTP pills which then stopped spontaneously. At the time of presentation, there was no bleeding per vaginum.

On examination, the patient was conscious and oriented. Her pulse rate was 120/min, blood pressure 90/60 mm Hg. and shock index 1.3. There was mild pallor. On auscultation, there was decreased air entry on both sides of the chest. On per abdominal examination, there was tenderness and rigidity. On per vaginal examination, the uterus was bulky, mobile and tender, bilateral fornices were tender with no cervical motion tenderness. Her urine pregnancy test was positive. TVS showed a mild amount of free fluid in the right iliac fossa and pouch of Douglas with internal echoes and an ill-defined right adnexal mass of 2.9 x 2.3 cm suspicious of ruptured tubal ectopic pregnancy. Her pre-operative investigations showed mild anemia with haemoglobin 9.4g/dl. Other relevant investigations were within normal limits.

The decision for exploratory laparotomy was taken, in view of suspicion of ectopic pregnancy. During laparotomy, there was frank pus (about 200 ml) in the abdominal cavity which was sent for cytology and culture & sensitivity. Pus flakes were seen over the uterus, adnexa, and intestines. The uterus was bulky with bilateral inflamed tubes. No sign of tubal pregnancy was seen. Abdominal exploration was done. No source of pyoperitoneum could be found. Dilation and curettage was also done and curettings were sent for histopathological examination and CBNAAT.

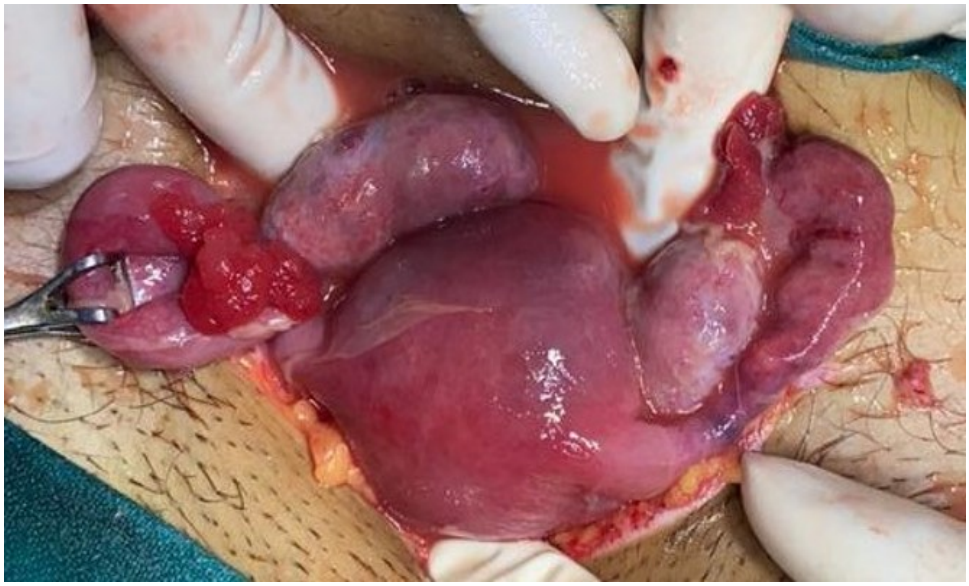


Figure 1: Pus flakes over uterus and adnexa

Her pre-operative Beta hCG was 602 mIU/mL. Post-operatively, respiratory medicine opinion was taken and sputum for AFB was sent. CECT whole abdomen was done which showed lymphadenopathy, dilated bowel loops, bilateral hydrosalpinx, collapse of lower lung lobes and bilateral pleural effusion suggestive of disseminated TB. Her pus culture showed growth of β-haemolytic streptococcus which was suggestive of secondary bacterial infection. Endometrial curetting showed secretory endometrium. Endometrial CBNAAT and sputum for AFB were negative. Post-operatively beta hCG showed a falling trend suggestive of complete abortion. The patient was started on anti-tubercular treatment (ATT) as per advice of Pulmonologist. Her post-operative period was uneventful and she was discharged on the 10^{th} postoperative day.

3. Discussion

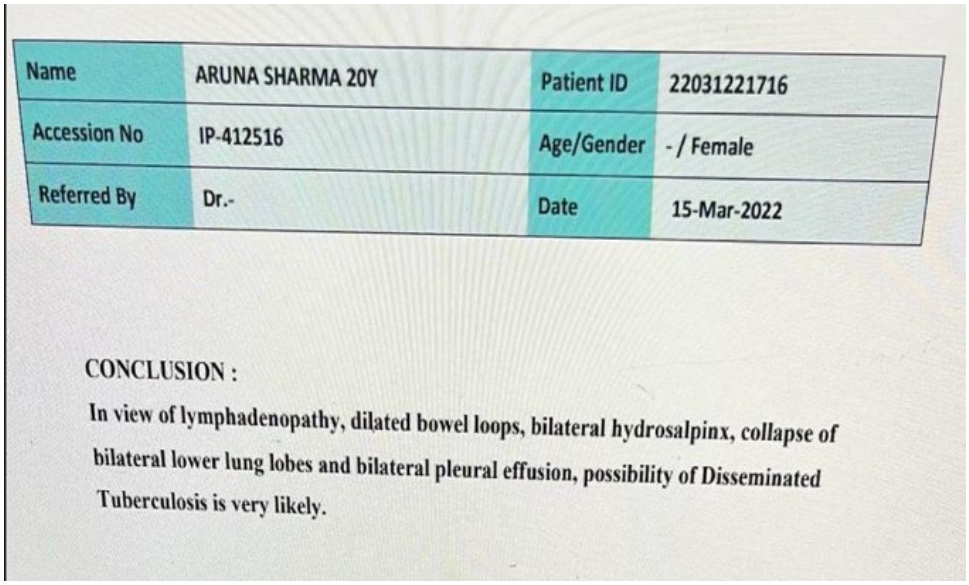
India accounts for 28% of tuberculosis cases1. In a study from three states in India and based on the national tuberculosis program, abdominal TB constituted 12.8% of all EPTB cases [7].

Risk factors for developing abdominal TB include younger age, female gender, Asian ethnicity, human immunodeficiency virus (HIV) coinfection, immunosuppression, diabetes mellitus, chronic liver disease, and peritoneal dialysis [8–10].

Peritoneal tuberculosis is one rare type of abdominal tuberculosis. It is estimated that the incidence of peritoneal tuberculosis among all forms of tuberculosis varies from 0.1% to 0.7% worldwide [10]. Peritoneal TB has three traditional classifications: (1) wet with ascites; (2) fibrotic with omental thickening; and (3) dry with adhesions.

Only a few cases of peritoneal tuberculosis in pregnancy have been reported in the literature suggesting its rare occurrence. Peritoneal tuberculosis progresses insidiously. Pain, fever, chills, weight loss, and abdominal pain are common complaints. In pregnant women, diagnosis of tuberculosis may be delayed by the non-specific nature of early symptoms and because they are often attributed to pregnancy [11].

In this case, the patient had complaints of abdominal discomfort and vomiting of few days duration and had come to the emergency with features of shock. As the patient had taken medical abortion pills just two weeks ago, the Urine pregnancy test was still positive. Patient with a history of pain, vomiting with a positive urine pregnancy test, and features of shock have a likely diagnosis of ruptured ectopic pregnancy. It is likely that, in our case, the patient started to go into septic shock due to secondary infection of tubercular ascites.



Name	ARUNA SHARMA 20Y	Patient ID	22031221716
Accession No	IP-412516	Age/Gender	- / Female
Referred By	Dr.-	Date	15-Mar-2022

CONCLUSION :

In view of lymphadenopathy, dilated bowel loops, bilateral hydrosalpinx, collapse of bilateral lower lung lobes and bilateral pleural effusion, possibility of Disseminated Tuberculosis is very likely.

At times, it is difficult to differentiate between hemoperitoneum and pyoperitoneum on ultrasound as both typically appear to be a hypoechoic fluid collection. The stasis time of the hematoma will affect the appearance, with established clots appearing more hyperechoic. Usually, pus is heterogeneously echogenic while clotted blood appears uniformly echogenic [12]. Since, at times, it may be difficult to differentiate between hemoperitoneum and pyoperitoneum, fluid collection in the abdomen on ultrasound with shock and a positive urine pregnancy test should be diagnosed as ruptured tubal ectopic pregnancy unless proven otherwise. However, in India tuberculosis can be considered as possible diagnosis in some cases. This case report highlights the possibility of peritoneal tuberculosis presenting as ruptured tubal ectopic pregnancy.

4. Conclusion

Tuberculosis in pregnancy is a diagnostic challenge, especially in the absence of lung involvement. It mimics other diseases and clinical presentation and is usually non-specific, which may lead to diagnostic delay and development of complications. Extreme vigilance should be used when dealing with unexplained abdominal symptoms to ensure timely diagnosis. Diagnosis often gets delayed in absence of histopathological evidence.

Article Information

Disclaimer (Artificial Intelligence): The author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.), and text-to-image generators have been used during writing or editing of manuscripts.

Competing Interests: Authors have declared that no competing interests exist.

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