



A Rare Case of Abdominal Tuberculosis in Pregnancy

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ABSTRACT

Abdominal tuberculosis in pregnancy is one of the least common forms of extrapulmonary tuberculosis in pregnancy. Early diagnosis is important to prevent obstetric and neonatal morbidity. Obstetric complications of TB include spontaneous abortion, small for date uterus, preterm labour, low birth weight, and increased neonatal mortality. We report the case of a 25-year-old pregnant woman who presented with pain in abdomen, vomiting and fever since 10 days and constipation, distension of abdomen and decreased frequency of urine since 2 days at 28 weeks of gestation. Routine biochemical and radiological investigations were performed and confirmed the diagnosis of intestinal tuberculosis. The patient was started on antituberculous chemotherapy. She responded well to the treatment.

KEYWORDS : Abdominal Tuberculosis, Diagnosis, Pregnancy

Introduction:

Presence of tuberculosis and pregnancy affect women both physically and mentally. Both are two different types of stresses experienced by women. The most common site of involvement of the gastrointestinal tuberculosis is the ileocaecal region. Ileocaecal and small bowel tuberculosis presents with a palpable mass in the right lower quadrant and/or complications of obstruction, perforation or malabsorption especially in the presence of stricture.¹ India accounts for 30% of the burden of all TB cases in the world.² More than 80% of the patients are in the economically productive age-group of 15 – 54 years.³ The disease is responsible for killing more women of reproductive age than all the combined causes of maternal mortality⁴ and gives rise to nearly one-third of the female infertility in the country.⁵ Exact data in respect of the proportion of pregnant women harbouring TB are unavailable in the Indian context because of the variance in the observed maternal outcomes in pregnancies complicated by TB. However, an increased obstetric morbidity has been reported in such women.⁶ Abdominal tuberculosis in pregnancy is one of the least common forms of extrapulmonary tuberculosis. We present the case of a pregnant woman with abdominal tuberculosis. The diagnostic and therapeutic problems are discussed, and the relevant literature is briefly reviewed. The objective of our work is to help clinicians to diagnose and treat these patients early.

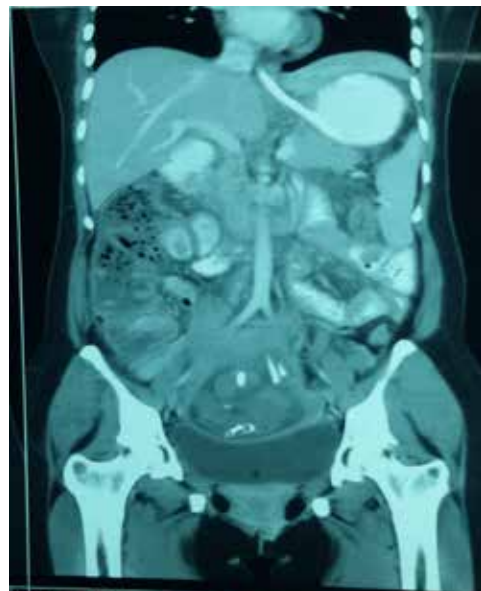
Case Report:

25 year old female, married since 5 years G3 P1 L1 MTP1, with 7 months of gestation came with fever since 10 days, evening rise of temperature, constipation, pain in abdomen and decreased frequency of urine since 2 days. Patient developed gradual distension of abdomen and vomiting. Patient has past history of pulmonary tuberculosis 1 1/2 years back for which she took treatment for 1 year and declared cure. LMP 20/05/2014, EDD 28/02/2015, G1: 3years female FTND, G2: MTP done 1 1/2 years back in view of congenital anomalies, G3: present pregnancy. After ruling out obstetric causes of pain in abdomen, the patient was further evaluated to confirm diagnosis.

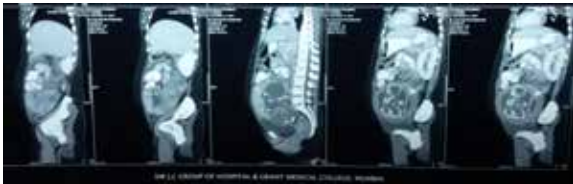
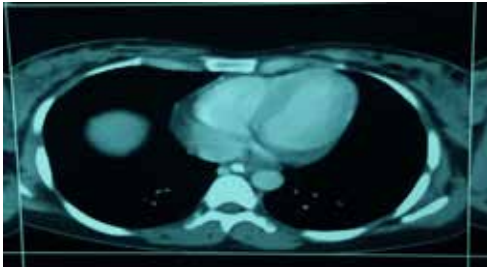
Her haemoglobin was 10.6 gm % with normocytic normochromic anaemia, with decreased haematocrit [29.04] and total WBC count was 8010/cmm. ESR was 62 which are raised. On ultrasound abdomen examination, mild splenomegaly with mild ascites was present.



USG abdomen showing intra uterine gestation



On CT scan abdomen and pelvis [P+C] : circumferential wall thickening involving luminal ileum, caecum with prominence of proximal ileal and jejunal loops, mesenteric fat stranding, omental thickening and non-necrotic mesenteric lymphadenopathy



In view of thickening of bowel, patient was kept nil by mouth for 5 days and started on higher antibiotics for acute illness. She did not respond to treatment and later she started on antituberculous treatment after taking chest physician opinion. She responded well to the treatment. She underwent caesarean section at 32 weeks of pregnancy for oligohydramnios and delivered female child of weight 2.1kg which was started on isoniazid prophylaxis. Now both mother and child are doing well and are on regular follow up.

Discussion

Tuberculosis in pregnant women has been a concern since the days of Hippocrates. Because of improved living conditions and discovery of effective chemotherapy, the incidence of tuberculosis has rapidly declined. The effects of TB on pregnancy may be influenced by many factors, including the severity of the disease, how advanced the pregnancy has gone at the time of diagnosis, the presence of extrapulmonary spread. Obstetric complications that have been reported in these women include a higher rate of spontaneous abortion, small for date uterus, and suboptimal weight gain in pregnancy,^{7, 8} others include preterm labour, low birth weight and increased neonatal mortality.⁹ Late diagnosis is an independent factor, which may increase obstetric morbidity about four times; while the risk of preterm labour may be increased nine times.⁸⁻¹⁰ Congenital tuberculosis is a rare complication of *in utero* tuberculosis infection¹¹ while the risk of postnatal transmission is significantly higher.¹² As much as half of the neonates delivered with congenital tuberculosis may eventually die, especially in the absence of treatment.^{13,14} So, tuberculosis is still a health problem in developing countries. In pregnancy, the incidence of tuberculosis is low; moreover, abdominal tuberculosis in pregnancy is uncommon because infertility is the commonest sign if tuberculosis involves the genitals and/or peritoneum.¹⁵

Abdominal tuberculosis typically involves the entire abdominal cavity (omentum, intestinal tract, liver, spleen and female genital tract), in addition to the parietal and visceral peritoneum. It represents approximately 12% of all tuberculosis cases and is occasionally seen in association with the pulmonary or the disseminated form of the disease. A possible mechanism to explain the pathogenesis of abdominal tuberculosis is the reactivation of latent tuberculous foci in the peritoneum or hematogenous spread from primary pulmonary tuberculosis, as occurred in our case.¹⁶

The clinical manifestations of tuberculous peritonitis progress insidiously. Fever, chills, weight loss and abdominal pain are common complaints. Most patients require extensive diagnosis work-up because of unexplained prolonged febrile illness, ascites and elevated CA 125 level.

Ascites is present in almost all patients; the fluid is exudative (protein >2.5g/dl) with predominance of mononuclear cells; however, 10% of patients may have an initial neutrophilic response. Bacteriologic examination of the ascitic fluid is not always diagnostic: Acid-fast smears are rarely positive in tuberculous peritonitis, and conventional cultures yield the pathogen in only 25% of cases.¹⁶

of tuberculosis is 69%. Patients with tuberculosis were likely to show mesenteric changes, macronodules (>5mm in diameter), splenomegaly, and splenic calcification on CT imaging.¹⁵

In pregnant women with suggestive symptoms and signs of TB, a tuberculin skin test should be carried out. This has since been accepted to be safe in pregnancy.^{17,18} But in presence of past history of tuberculosis, this test will give false positive results. Hence, it was not done in our case. Molecular Line Probe Assay (LPA) as well as the use of polymerase chain reaction (PCR) is presently facilitating the specific identification of the tubercle bacilli.¹⁹

Conclusion

Abdominal tuberculosis is rare in pregnancy and should be suspected in ascites during pregnancy after ruling out obstetric and acute surgical causes of pain in abdomen specially in patient having past history of tuberculosis. The clinical manifestations progress insidiously. It is difficult to identify peritoneal tuberculosis in pregnancy by radiologic evaluation and laboratory. Accurate diagnosis requires histopathological examination following image-guided biopsy (when possible). Early diagnosis is important to prevent obstetrical and neonatal morbidity.

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