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Letter to the Editor

A case of abdominal tuberculosis: a challenging diagnosis

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Dear Sir,

Tuberculosis continues to intimidate the human race since traditional for an extremely long time not only due to its effects as a medical ailment, but also it impacts as a social and economic burden. Tuberculosis is a major health problem in developing countries. Abdominal tuberculosis is most common extra pulmonary tuberculosis. Tuberculosis can suspect in endemic countries like India, and can have various presentations and complications, it can mislead the diagnosis. Here, this case it involves small bowel, large bowel and peritoneum with different presentation.

A 56-year-old female with no co-morbidities was presented to the outpatient department with complaints of Abdominal distension associated with abdominal pain since 1 month and Vomiting on and off since 1 month. She was apparently normal 1 month back then she developed intermittent, high grade fever associated with chills, rigors and headache for which she has took symptomatic treatment elsewhere. Later patient was noticed abdominal distension, it was insidious in onset gradually progressive since 1 month, associated with intermittent vomiting. No history of dysphasia, loose stools, constipation, haematemesis, malena. Patient had previous history of abdominal pain and was diagnosed as cholelithiasis with cholecystitis since 3 years. She was treated conservatively (5-6 times in last 3 years). She was having normal bowel and bladder habits, there was no similar complaints in her family, no history of contact TB and no history of addictions.

On examination, patient was conscious, well oriented, well built & nourished, no lymphadenopathy, no pedal edema, no skin tattoo, no markers of liver cell failure, JVP not elevated, no prominent carotid pulsation.

On systemic examination, her abdomen was distended, Flanks were full, umbilicus normal, No scars, sinuses and engorged veins. All quadrants were moving with respiration, peristaltic movements were not visible, hernial orifices were free, divaricating recti was not seen. Diffuse abdominal Tenderness and warmth and no organomegaly on palpation. Shifting dullness was present on percussion. Bowel sounds were present, no bruit and venous hum on ascultation. Bilateral basal breath sounds were absent on respiratory examination, cardiovascular and central nervous system examination was normal. suspected differential diagnosis was polyserositis due to autoimmune disease, hypothyroidism, abdominal tuberculosis, abdominal peritonitis due to billiary leak. ECG showed sinus tachycardia with low amplitude wave on limb leads. Chest x-ray showed costophrenic angles obliterated bilaterally, right side more compared with left. Cardiologist opinion was obtained, echo showed mild pericardial effusion. Lab investigation showed microcytic hypochromic anaemia (HB-10.2gm/dl), normal liver and renal function tests, other routine tests were normal. Serology was negative. Thyroid profile was normal. USG Abdomen was showed cholelithiasis without cholecystitis, b/l pleural effusion right more than left, moderate ascites with few internal thin septations and left simple renal cyst.

Ascetic fluid analysis was appearance clear, yellow in colour, PH was 7, total Leucocyte count was 12000/cum, with lymphocytes were 95% and neutrophils were 5%, glucose was 85mg/dl, total protein was 5.6gm/dl, albumin was 2.2gm/dl, LDH-621u/l, triglycerides-47mg/dl, bilirubin total less than 0.1mg/dl, SAAG ratio 1.3, reactive mesothelial cells were present. Ascetic fluid gram stain showed plenty of pus cells, gram positive cocci seen. Ascetic fluid culture sensitivity showed no growth.

CECT abdomen showed Diffuse left sided colonic wall thickening involving rectum, sigmoid colon and descending colon with diffuse loss of colonic haustration. Serum anti neutrophilic antibody (ANA) was negative. Ascetic fluid ADA was 46.6 U/L. Ascetic fluid gene expert showed negative for acid fast bacilli.

Colonoscopy was done, it showed Ileocaecal junction mucosa appears oedematous and hyperaemic, no mass or ulcerations seen. Multiple biopsy have taken from IC junction,sigmoid colon and rectum. Histopathology biopsy specimens demonstrated granulomatous inflammation, it contain epithelioid macrophages, Langerhance cells and lymphocytes were seen. We initiated on ATT. Patient was symptomatically improved on treatment and on follow-up.

Gupta et al, studied on tuberculous peritonitis patients in India, described about an ascitic ADA level of 30 units/L had a sensitivity and specificity 100% and 94.1% respectively.[1] Liao et al, from China, Taiwan demonstrated that the cut off value of ADA was 27 U/L

as, the sensitivity was 100% and specificity 93.3% for diagnose tuberculous peritonitis with chronic liver disease patients group.[2] Kang SJ group studied on 48 patient from South Korea described the cut-off value for ADA was 21 IU/L to differential diagnosis between peritoneal carcinomatosis and tuberculous ascetis with sensitivity was 92%, specificity was 85%, positive predictive value was 88.5%, and negative predictive value was 89.5%.[3] In a metanalysis 699 samples were tested for Xpert MTB/RIF finally they were estimates of sensitivity of the test widely varied from 42% to 100%.[4,5]

This case was presented with abdominal distension with pain and on and off vomiting, there was no specific complains related tuberculosis and CT was also showed loss of haustration an unusual finding. ADA was done and got the report earlier than histopathological biopsy and initiated ATT. Patient was well responded to the treatment. The ADA assay has been recommended for diagnosis of abdominal tuberculosis and need to fallow systematic approach to conform the diagnose of abdominal tuberculosis in suspected cases in endemic countries like India.

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