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CASE REPORTOPEN ACCESS

Abdominal Tuberculosis with Unilateral Massive Transudative Pleural Effusion- A Case Report

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A B S T R A C T

Abdominal tuberculosis is defined as infection of the gastrointestinal tract, peritoneum, abdominal solid organs, and/or abdominal lymphatics with *Mycobacterium tuberculosis*. It constitutes approximately 12% of extrapulmonary TB cases and 1 to 3% of total TB cases.Approximately 15%-25% of cases with abdominal TB have concomitant pulmonary TB. However association of unilateral transudative pleural effusion with TB abdomen is rare.A 45 years female with no significant past history presented to us with chief complaints of progressive e dyspnea, distension of abdomen, low grade fever, loss of appetite for past 2 months. On examination her vitals were stable apart from a respiratory rate of 24/min and had diminished breath sound over right hemithorax. Per abdominal examination was unremarkable. Chest X-ray showed right massive pleural effusion. USG & CECT of abdomen& pelvis revealed circumferential wall thickening involving ileo-caecal junction & part of ascending colon with mesenteric lymphadenopathy. Colonoscopy guided biopsy from ascending colon showed granuolomatous inflammation in necrotic background. Biopsy specimen was negative for MTB in CBNAAT. 2300mlclearpleural fluid aspirated from right pleural cavity with fluid cytology being predominantly lymphocytic, ADA 3.1 IU/L, transudative effusion. ECG & 2D ECHO were unremarkable. Pleural fluid and induced sputum were negative for MTB on CBNAAT, as well as culture. Her blood investigations were normal. HRCT thorax showed centrilobular nodule involving bilateral upper lobes with bronchiectatic changes. Bronchoscopy guided BAL fluid & post bronchoscopy sputum were negative for AFB with 30% lymphocytes on differential count. Tuberculin test was positive with an induration of 20mm.Various causes of transudative pleural effusion were excluded. Patient was clinically diagnosed as abdominal tuberculosis and started with ATT and patient improved on subsequent follow up.

Keywords: TB Abdomen, Pleural Effusion, Transudative effusion.

BACKGROUND

Abdominal tuberculosis is defined as infection of the gastrointestinal tract, peritoneum, abdominal solid organs, and/or abdominal lymphatics with Mycobacterium tuberculosis. It constitutes approximately 12% of extrapulmonary TB cases and 1 to 3% of total TB cases. Approximately 15%-25% of cases with abdominal TB have concomitant pulmonary TB. However association of unilateral transudative pleural effusion with TB abdomen is rare.

Case Report

A 45 years female with no significant past history presented to us with chief complaints of progressive dyspnea, distension of abdomen, low grade fever, loss of appetite for past 2 months. She had no co morbidity & no addiction

All vitals and general examination finding were unremarkable. **RESPIRATORY SYSTEM EXAMINATION** –Reveled right massive pleural effusion with decreased chest movement, decreased vocal fremitus with stony dullness

note and diminished vesicular breath sound with reduced vocal resonance over entire right hemithorax. **PER ABDOMINAL EXAMINATION**- soft, non-tender, distended abdomen with no organomegaly.

MANAGEMENT

INVESTIGATION: **Chest X-ray**:- At time of admission it showed right massive pleural effusion and mediastinal shifting to left (Fig-1). **Blood Investigation**: CBC, LFT, RFT-Normal limit & HIV, HBV, HCV-Nonreactive.**Pleural fluid analysis**: Colour-clear watery •Biochemical: protein-0.5g/dl, Albumin-0.3g/dl, ADA-1.8 IU/l, LDH-125 IU/l •Cytology:- Mixed cellularity with mainly lymphocytes and no malignant cell found •Pleural Fluid CBNAAT:- Negative for M.TB •Culture Sensitivity – Negative for Bacterial Culture.

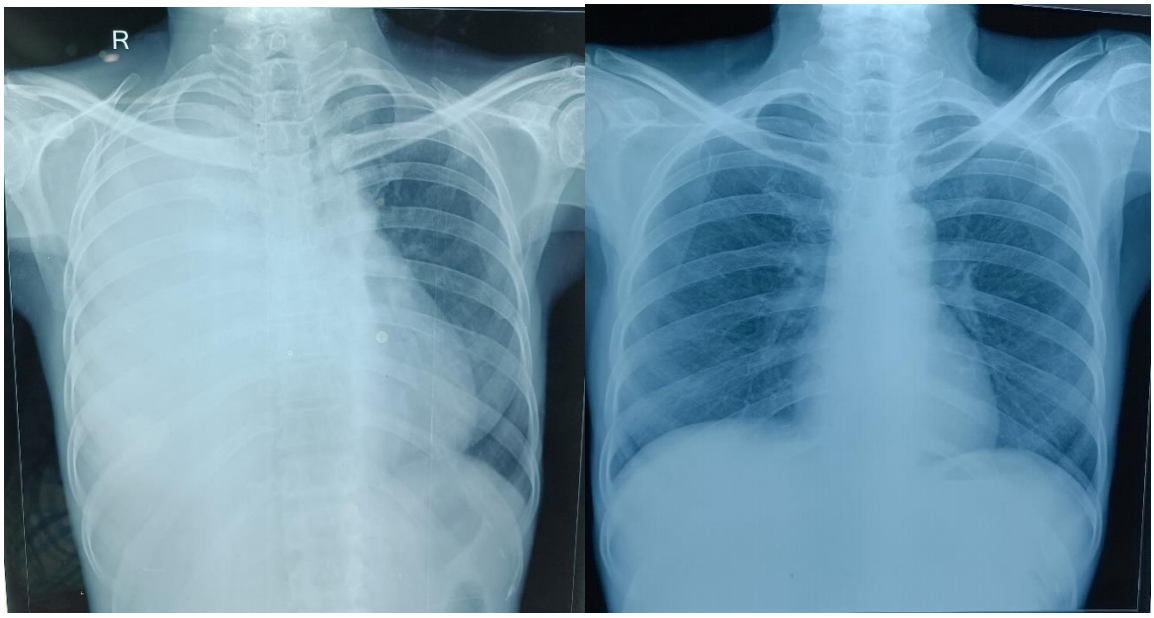

Figure-1:

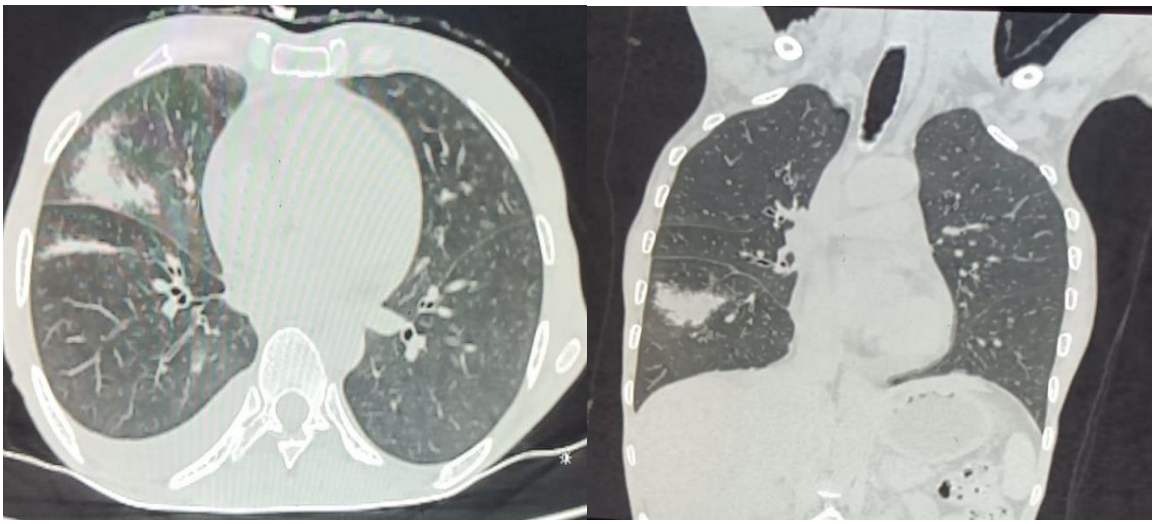

Figure-2:

ULTRA SONOGRAPHY OF THORAX, ABDOMEN & PELVIS: Right gross anechoic collection & asymmetric hypoechoic circumferential thinking 7-8 cm of terminal Ileum and Ileo-caecal junction and ascending colon.**HRCT THORAX**:- Centrilobular nodule in bilateral upper lobe, Patchy Ground Glass opacity and consolidation in right lung all lobe & mild-right pleural effusion (Fig-3). **CECT- ABDOMEN**:- Ileo-caecal Thinking and mesenteric lymphadenopathy (F/S/O- Koch Abdomen) (Fig-4). **COLONOSCOPY GUIDED BIOPSY**- from ascending colon showed granuolomatous inflammation in necrotic background. Biopsy specimen was negative for MTB in CBNAAT. **ECG & 2D-Echo**- Normal, **FIBRO OPTIC BRONCHOSCOPY**:- BAL Fluid Negative for Malignancy and Tuberculosis Follow up after 15 days – Repeat Chest X-ray (Figure 2) did not show any recurrence of pleural effusion.

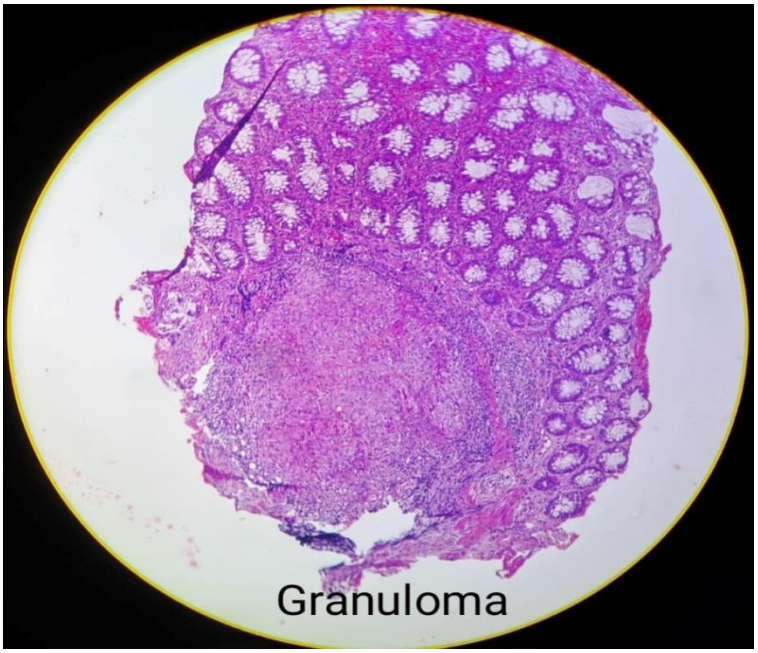

Figure-3:

Figure-4:

DISCUSSION

Patient was clinically diagnosed as abdominal tuberculosis and started with ATT and patient clinically improved on subsequent follow up after 15 days with no re-accumulation.

CONCLUSION

Pleural effusion is common with wet ascitic variant of TB-Abdomen, however it is almost always exudative in nature. In this case the effusion was transudative. All possible etiologies of transudative effusion were ruled out. However to confirm the diagnosis as tubercular effusion, pleuroscopy or video assisted thoracoscopic surgery (VATS) guided pleural biopsy may be obtained which may be sent for histopathological study and culture for Mycobacterium Tuberculosis.

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