Picture stories

Abdominal lymphangioma mimicking peritoneal tuberculosis

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Case report

A two and a half year old previously healthy boy growing and developing normally, presented with fever and loose stools for five days with abdominal distension. Urine output was normal. No blood or mucus was observed with stools. Immunisation was age appropriate according to the EPI schedule. Grandfather who lives with them had a chronic cough. Examination revealed a febrile child with a distended abdomen due to ascites with no organomegaly. Examination of other systems was normal. BCG scar was present.

Full blood count showed a white blood cell count of 12,200/cu mm with 73% neutrophils and 16% lymphocytes. The platelet count was 298,000/cu mm and the haemoglobin level was 9.3 g/dl. The erythrocyte sedimentation rate (ESR) was 98 mm/first hour. Ultrasound scan of abdomen showed evidence of moderate to gross, septated, thick ascitic fluid. Mantoux test showed an induration of 9 mm. Chest radiograph was normal. Ascitic fluid protein level was 4.8 g/dl and there were no abnormal cells. Interferon Gamma Release Assay (IGRA) for tuberculosis (TB) in ascitic fluid was reported as inconclusive. Polymerase chain reaction for TB did not reveal evidence of tuberculous peritonitis. Decision was made to commence anti-tuberculous therapy while awaiting contrast enhanced computed tomography (CT) scan of the abdomen. CT scan of abdomen revealed a large intra-abdominal lymphangioma (Figure 1).

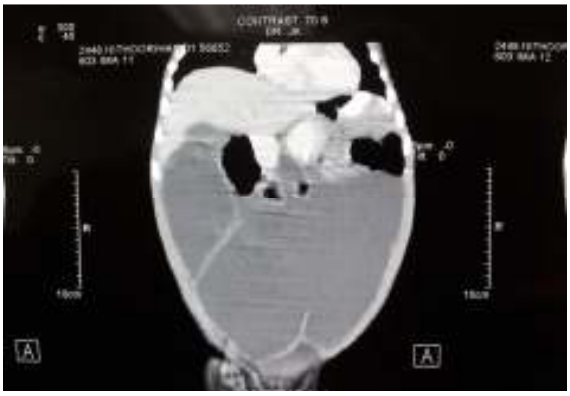

Figure 1: ***Computed tomography scan of abdomen***

On laparotomy this was identified as arising from the greater omentum, which was excised completely (Figure 2).

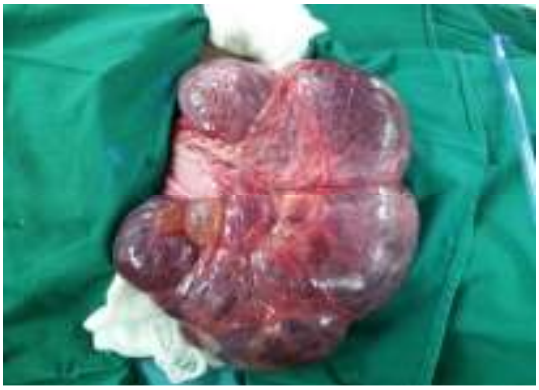

Figure 2: ***Abdominal lymphangioma***

Histology was consistent with a lymphangioma without any evidence of tuberculosis. Anti TB therapy was omitted after the histological diagnosis. One month after surgery, the child was well without

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abdominal distention and ESR was 19 mm/first hour. Child was normal when reviewed after 6 months.

Discussion

Abdominal lymphangiomas are rare benign lymphatic malformations with a frequency of 1-4 per 100,000. It can mimic acute abdomen[1,2]. In our patient, it mimicked peritoneal TB. Ascitic fluid in peritoneal TB has protein more than 3 g/dl[3]. Decision to treat as TB was based on high ESR, Mantoux test result of 9 mm and septate ascites with high protein level in ascitic fluid and possible contact history of tuberculosis. As the family member refused to get himself screened for TB, the possibility of contact with tuberculosis could not be excluded. Annually around 9000 new cases of TB are found in Sri Lanka where 60% are smear positive with high risk of transmission. The national prevalence of TB is estimated to be 4.2% with an Annual Risk of Tuberculosis Infection (ARTI) of 0.4%. ARTI is defined as the probability of acquiring new infection or re-infection over a period of 1 year[4]. A literature search revealed two patients with tuberculous peritonitis where the polymerase chain reaction (PCR) for TB was negative but treatment for TB was started on clinical grounds with subsequent improvement[5]. Caseative necrosis with granulomas is the histological hallmark of TB and this was not found in our patient. IGRA is specific for *Mycobacterium tuberculosis* infection although it cannot determine active or latent infection. IGRA has 72% sensitivity in diagnosing extra-pulmonary TB[6]. BCG vaccination does not interfere with the results of IGRA[7]. Inconclusive IGRA shows uncertain likelihood of *Mycobacterium tuberculosis* infection.

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