A CASE OF TUBERCULOUS POLYSEROSITIS

G. Vaičekonienė[1,2], E. Sučilienė[1,2], I. Ivaškevičienė[1,2] , S. Rusonienė [1,2] , J. Drachneris[3]

[1] Vilnius University Faculty of Medicine, Clinic of Children's Diseases, Vilnius, Lithuania

[2] Children's Hospital, Affiliate of Vilnius University Hospital Santaros Klinikos. Vilnius, Lithuania;

[3]National Center of Pathology, Affiliate of Vilnius University Hospital Santaros Klinikos. Vilnius, Lithuania;

Background

A diagnosis of TB (pulmonary or extrapulmonary) in a child is often based of the classic triad: recent close contact with an infectious case, a positive tuberculin skin test (TST) or interferon-gamma release assay (IGRA), and suggestive findings on chest radiograph or physical examination. For diagnosis of extrapulmonary TB, specimens for culture should be collected from any site where infection is suspected.

Case report.

13-year-old patient entered the hospital due to fever with chills, general weakness, headache. She's lost weight for 2 kilos during the last 2 months.

Physical examination revealed asthenic physique, ascites, hepatosplenomegaly, fluid in the pleura cavity, fluid traces in pericardial. No focal neurological deficits and lymphadenopathy were present. During the inspection abundant sweating was observed. The laboratory results showed slight elevated liver enzymes (aspartate aminotransferase - 51 U/L, alanine aminotransferase - 58 U/L,), infectious parameters (C reactive protein 83 - >145 g/L) and mild anemia (hemoglobin 106 g/L).

Abdomen and pelvis CT scan revealed hepatosplenomegaly, fluid in the abdomen, pleura cavity, thickened omentum. (Fig. 1, Fig. 2).

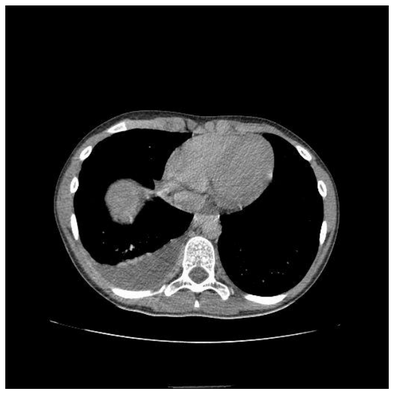

Figure 1. Abdominal CT: fluid in the pleura cavity.

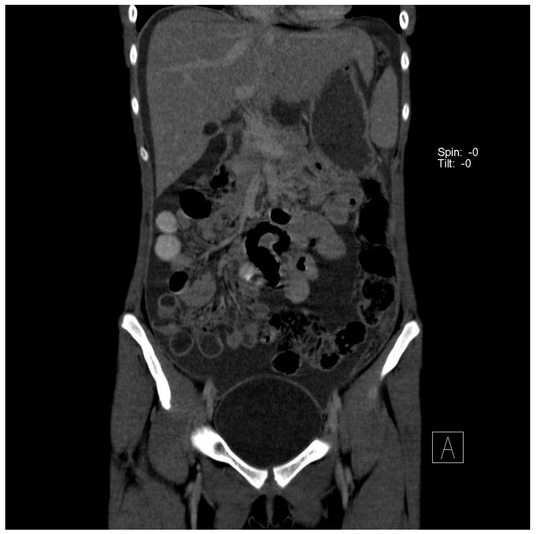

Figure 2. Abdomen and pelvis CT: hepatosplenomegaly, ascites, thickening of omentum.

The prescribed empirical antimicrobial treatment was unsuccessful. Therefore, the patient was transferred to a tertiary care center in suspicion of rheumatic diseases.

The patient's condition did not improve, liver enzymes, inflammatory parameters increased. Control abdominal sonography revealed ascites, pleuritis and suspected bulk process. Differential diagnosis included possible oncological process and the tuberculosis with abdominal manifestation.

CA-125 level was elevated to 1473,6 kU/l. IGRA test, TST were negative.

Laparotomy, adheziolysis and biopsy were performed that showed granulomatous changes. The Xpert-MTB/RIF identified MT complex susceptible to Rifampicin from the biopsy (ascitic fluid). Microscopic sections showed granulomatous inflammation (Fig. 3) with central caseous necrosis (Fig. 4). Mycobacterial bacilli were also demonstrated by acid-fast stain.

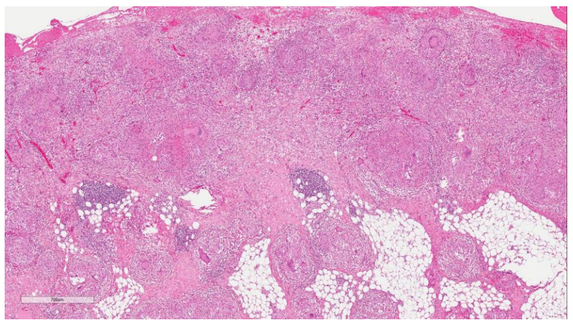

Figure 3. Histopathology of omentum: granulomatous inflammatory infiltration

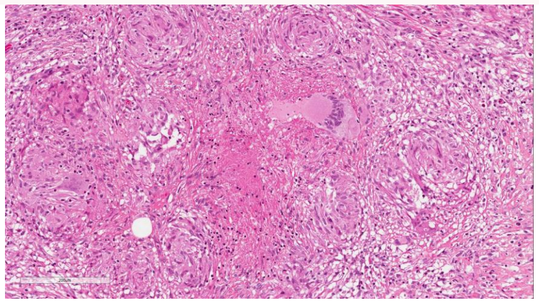

Figure 4. Granuloma with central caseous necrosis.

The patient was diagnosed with TB polyserositis (peritonitis, pleuritis, pericarditis). The girl completed 2 months of intensive anti-TB treatment (Isoniazid, Rifampicin, Pyrazinamid, Ethambutol, Amikacin) , followed by 10 months of Isoniazid, Rifampicin. From epidemiological point, a classmate of patient developed TB pleurisy, later the diagnose of sputum positive pulmonary TB was confirmed to the teacher.

Conclusions

1.TB polyserositis is rare and symptoms are not specific. It is important to differentiate from other infections, rheumatic or oncologic diseases.

2.History of contact with an infectious TB case and a positive TST are key elements to suspect TB. However, a negative TST does not rule out TB, since false-negative results can occur for overwhelming TB infection.

3.The most important is histological and bacteriological confirmation.