Tuberculous peritonitis and enteric fistula

Published on 05.12.2013

DOI: 10.1594/EURORAD/CASE.11367
ISSN: 1563-4086
Section: Abdominal imaging
Area of Interest: Abdomen
Procedure: Contrast agent-intravenous
Procedure: Contrast agent-oral
Imaging Technique: CT
Special Focus: Infection Case Type: Clinical Cases
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Patient: 28 years, male

Clinical History:

28-year-old, male.
Abdominal fistula in mesogastric area, subfebrile temperature, slight abdominal pain.
The patient was treated for haematogenous disseminated pulmonary tuberculosis, had a positive probe result for Mycobacterium tuberculosis from the respiratory tract.
Three months earlier, the patient was operated on for a perforated ulcer of the small intestine.

Imaging Findings:

MDCT of abdomen with oral contrast, 3 hours before the study, to determine the localization of the fistula; MDCT of abdomen with injection of contrast agent was performed (OMNIPAQUE-350 100 ml).
MDCT findings:
- multiple encapsulated liquid collections with gas bubbles between the intestinal loops, in the pelvic cavity and retroperitoneal
- hyperplasia of the mesenteric lymph nodes
- enteric fistula
- signs of disseminated pulmonary tuberculosis

Discussion:

Tuberculous peritonitis is a rare disease [1]. Tuberculous peritonitis is caused by lymphogenous haematogenous dissemination of Mycobacterium tuberculosis, or by the contact way - the transition from the intestine to the visceral peritoneum (for example, perforation of the intestine ulcers). This presentation shows a case of tuberculous peritonitis with the presence of enteric fistula, discussed radiographic patterns of change abdominal cavity and retroperitoneal space, which can be useful in the diagnosis of this rare disease.
Treatment: laparotomy, excision of enteric fistula and interintestinal adhesions, removal of liquid formations of the abdomen and pelvis, mesenteric lymph node biopsy. The further treatment of tuberculosis should take place in a specialized clinic.
MDCT is a high-sensitive and effective method to estimate the prevalence and forms of tuberculosis. MDCT with contrast enhancement, in this case, helps to identify the nature changes in the abdominal cavity, and avoid
unnecessary surgery.

**Differential Diagnosis List:** intestinal tuberculosis, tuberculous peritonitis, enteric fistula., Ovarian carcinoma [2, 3], Peritoneal carcinomatosis [4], T cell lymphoma [5]

**Final Diagnosis:** intestinal tuberculosis, tuberculous peritonitis, enteric fistula.

**References:**


Description: Multiple encapsulated liquid collections (green arrows) with gas bubbles between the intestinal loops, in the pelvic cavity and retroperitoneal. Hyperplasia of the mesenteric lymph nodes. Origin: Patient D., Radiology dept, City emergency hospital 1, Omsk, Russian Federation.
Figure 2

Description: Multiple encapsulated liquid collections (green arrow) with gas bubbles between the intestinal loops, in the pelvic cavity and retroperitoneal. Enteric fistula. Origin: Patient D., Radiology dept, City emergency hospital 1, Omsk, Russian Federation.
Figure 3

Description: Enteric fistula (green and red arrow). Signs of disseminated pulmonary tuberculosis
Origin: Patient D. Radiology dept., Emergency Hospital 1, Omsk, Russian Federation.