Prolonged Fever in Peritoneal Tuberculosis: A Case Report

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Abstract

We report a case of prolonged fever and abdominal pain which was due to peritoneal tuberculosis. An initial examinations including complete blood test and serologic tests did not lead to diagnosis. A final diagnosis was made by abdominal CT scan and laparoscopy combined with histopathological studies. Antituberculous medications provided a good clinical response.

Keywords:*prolonged fever – peritoneal tuberculosis – laparoscopy – antituberculous drugs*

Introduction

Peritoneal tuberculosis may lead to delayed diagnosis because of the nonspecific features such as fever, abdominal distension, abdominal tenderness, ascites, and weight loss.[1,2] Early diagnosis is very important to prevent morbidity and mortality. Prolonged fever and abdominal pain are common presenting symptoms. Abdominal CT scan plays a major role in early diagnosis of this condition, but final diagnosis of peritoneal tuberculosis is based on histopathological study.[1]

Prolonged fever is significantly found more in children less than 5 years of age. However, one should suspect abdominal tuberculosis at any age group on prolonged fever followed by abdominal pain. Here, we describe a case of a 29-year-old man because of prolonged fever.

Case Report

The patient is a 29-year-old man Bataknese Indonesian, who came to the Tropical and Infectious Disease Clinic because of a two month of recurrent fever and a slightly enlarged abdominal wall. His weight had decreased by 6 kg. The weight was 58 kg. He

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was working in Miami Beach, USA, when the symptoms occurred. He had been examined in the hospital.

His past blood testing revealed normal complete blood count. The serologic testing including HIV, HCV, HBV, CMV, toxoplasma, rubella, Epstein Barr, and salmonella were non-reactive. Urine screen was normal. There were no abnormalities in his chest –X ray and abdominal ultrasound. He had been treated with ceftriazone, azithromycin, and moxifloxacin but the symptoms persisted.

On medical examination, the temperature was 38°C, the respiratory rate was 18 breaths per minute, the pulse 80 beats per minute, the blood pressure 130/80 mmHg. There was no lymph node enlargement. The abdomen was slighty enlarged and mild tenderness at the umbilical region, but peristalsis was normal.

The laboratory data results including complete blood counts, liver and kidney function tests were normal. The abdominal scan revealed aortic lymphadenopathy and peritonitis. Based on the clinical diagnosis of peritoneal tuberculosis, the anti-tuberculosis regimens of four drugs: rifampicin, isoniazid, ethambutol, and pyrazinamide were given.

The patient's conditions had been improved with no fever, increased appetite, and relieved abdominal pain. But his abdominal distension was more prominent associated with ascites. Thus, a diagnostic laparoscopy was performed. The results of laparoscopy revealed multiple small nodules in the peritoneum, intestines, and ascites (Figure 1). Ascitic fluid analysis was yellow and serous, LDH 288 U/L, protein 5.5 g/L, white cells counts 180 cells/mm^3, glucose level 79 mg/dL, pH 8.0, polymorphonuclear cells 50%, and mononuclear cells 50%. Ascitic fluid culture grew no bacteria. Ascitic fluid adenosine deaminase (ADA) was not measured. But histopathological examination of the peritoneal biopsy showed a specific chronic inflammation with lymphoid cells tubercles. The nodules contained epitheloid and Langhans giant cells and necrotic mass. Connective tissue stroma with inflammatory cell infiltration of lymphocytes was present.

The patient continued to take anti-tuberculous medications prescribed. On follow-up a month later, he reported increased appetite without fever. No abnormality was found on physical examination.

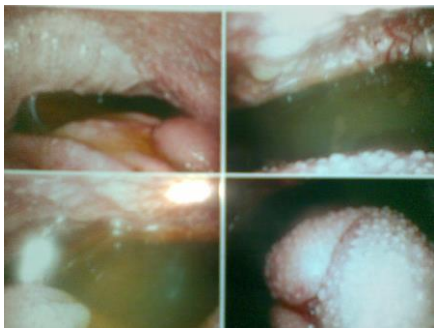

Figure 1. Laparoscopic appearance of peritoneal tuberculosis.

Discussion

The delay in the diagnosis of peritoneal tuberculosis resulted in prolonged fever in this patient, because of no specific features.[1] This condition is also a great mimicker of other abdominal conditions such as end stage renal and liver diseases,[3] and ovarian carcinoma.[4]

The abdominal tuberculosis has an insidious course without any specific laboratory, radiological or clinical findings.[5]Peritoneal tuberculosis is a form of abdominal tuberculosis that involves intestinal tracts, liver, spleen, omentum, female genital tract, parietal and visceral peritoneum.[6] The non-specificity of clinical features leads to difficulty in its diagnosis.[5] Various investigative methods had been reported as the gold standard in earlier studies, however, there are difficulties in clinical practice. Thus, a prolonged fever and abdominal pain with weight loss should consider peritoneal tuberculosis in the differential diagnosis.

Clinical features of prolonged fever and ascites confirmed by histopathology studies of laparoscopy findings led to definitive diagnosis of peritoneal tuberculosis. Histopathological studies of the caseation in granulomas (nodules) are the hallmark of peritoneal tuberculosis.[1] Laparoscopic study and peritoneal biopsy are safe procedures in adult patients suspected of abdominal tuberculosis.[7] Bargava et al., reported that laparoscopic findings by visual diagnosis was accurate in 95% of patients.[8] This examination enabled peritoneal biopsy to be made histologically on the basis of typical granulomas (nodules). Laparoscopy can be used for diagnosis in peritoneal tuberculosis with a sensitivity of 93% and a specificity of 98% when combined with histopathological studies.[9]

Most of the patients respond very well to the standard of antituberculous therapy. [1] Our patient's prominent symptom was prolonged fever without rigors,[10] and weight loss. This unspecific features led to empiric therapy with antimicrobial regimes. In the present study, appropriate therapy with antituberculous medications led to improvement of patient's condition. Although the symptoms had been improved after 1 month of standard antituberculous therapy, the treatment had to be continued for 6 months.[1]

Conclusion

Peritoneal tuberculosis may present with an unspecific clinical symptoms and signs. Thus, it is regarded as a great mimicker of a variety of abdominal diseases. A prolonged fever followed by abdominal pain and weight loss should consider peritoneal tuberculosis. Once the definitive diagnosis has been made with combined laparoscopy and histopathological studies, the standard antituberculous drugs can be given.

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Komentar

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