CASE REPORT

A Cause of Ileocolitis Mimicking Crohn's Disease: Intestinal Tuberculosis

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Abstract

Tuberculosis is an infectious disease that is the one of the common causes of morbidity and mortality in developing countries. It has two forms as primary and secondary. The secondary form is quite rare and should be considered in differential diagnosis of some other diseases. Especially, intestinal tuberculosis can be difficult to distinguish from Crohn's Disease which is an inflammatory bowel disease. Intestinal tuberculosis is a disease that can affect gastrointestinal system and histopathologically characterized by caseating granulomas. Clinical suspicion has a primary importance in diagnosis. Early diagnosis is crucial for better prognosis and lower rates of relapses. We present a case emphasizing that intestinal tuberculosis should be considered in differential diagnosis of other causes of ileocolitis.

Key Words: Crohn's Disease, ileocolitis, intestinal tuberculosis

Introduction

Tuberculosis is a multisystemic infectious disease which is characterized by caseating granulomas and still an important cause of morbidity and mortality. Despite eradication programs, tuberculosis frequency has increased with the increasing number refugees in many countries (1). Tuberculosis is common in communities with low socioeconomical status and immunosuppressed patients. Tuberculosis has two forms as primary and secondary forms; especially gastrointestinal system (GIS) involvement is important in secondary forms and can hold any region. GIS and peritoneum are primary involvement sites. Ileocecal region and jejunum are involved in 75 % of the cases with intestinal tuberculosis (ITB). It is thought that the lymphoid tissue affinity of tuberculosis bacilli and stasis may be responsible for this involvement pattern. Crohn's Disease (CD), which is frequently encountered in the pathologies of ileocolitis, is very important in the differentiation of the disease. While unilateral involvement can be seen in CD, ITB exhibits bilateral involvement of ileocecal valve (2,3). In ITB, thickened intestinal wall and inflammatory mass around the thickened wall can be seen. Stricture and fistula formation can also be detected. In ITB, the hyperemic areas and ulcers on bowel mucosa are segmental and healthy tissue can be seen between these segments, as in CD (4).

ITB affects men and women equally in every age. It's symptoms and findings are generally non-specific. Most patients present with symptoms such as abdominal pain, diarrhea or fever. In 25 % of the cases, a mass in the right lower quadrant can be palpated. Patients may have abdominal tenderness secondary to extensive intraabdominal inflammation. Clinical suspicion is the priority for diagnosis. ITB can be diagnosed by positive culture, polymerase chain reaction (PCR) or demonstrating acid-fast bacilli in tissue. The pattern of involvement in the colonoscopy is non-specific and should be differentiated from other diseases. ITB can resemble some other diseases, especially CD (5).

It can be challenging to differentiate ITB from CD due to their endoscopic and histopathologic similarities. Since misdiagnosis can result in dramatic increase in morbidity and mortality rates, clinician should be careful in the differential diagnosis of these diseases. In this case report, we reported the clinicopathologic features and the treatment of ITB which presented as ileocotilis and is the primarily important differential diagnosis of CD. Informed consent was obtained from the patient.

Case Presentation

A 38 year old patient consulted our polyclinic with stomachache, nausea, diarrhea, dyspnea, weakness and weight loss (about 10 kg). The patient had consulted another medical center with non specific abdominal symptoms and her history of disease was pulmonary tuberculosis and

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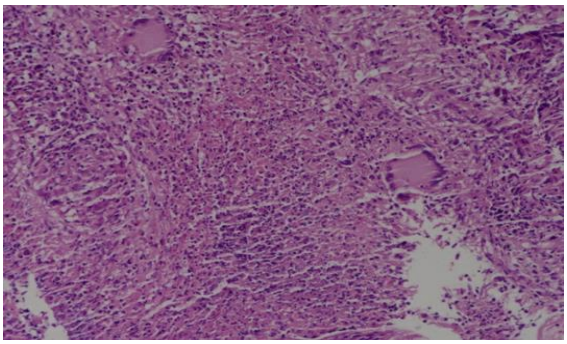
right hemicolectomy due to ileocolonic mass. The patient's complaints have been present for the last 3 months. She had a family history of tuberculosis at her mother and brother. On physical examination, there was no pathological findings expect paleness, fever (38.3 0C) and mass lesion in the right lower quadrant of the abdomen. Laboratory data at the time of admission were as follows: hemoglobin (Hgb) 9.6 gr/dL (12-15.5 gr/dL), erythrocyte sedimentation rate 30 mm/h (0-29 mm/h), c-reactive protein level 6.47 mg/L (0-3 mg/L). The patient was hospitalized with a prediagnosis of CD. Posteroanterior lung x-ray revealed no pathological findings in favor of pulmonary tuberculosis. Abdominal computed tomography (CT) revealed hepatosplenomegaly, multisegmental diffuse wall thickening in ileum and multiple lymphadenopathy (Figure 1a, 1b). The colonoscopy examination of the patient revealed an ulcerated area that interfered the passage of the exudate endoscope that surrounds all the lumen of ileocolonic anastomosis line (Figure 2). The histopathological work of biopsy from ulcerated lesion revealed granulomas that show us caseification necrosis (Figure 3). Mycobacterium tuberculosis was not seen in PCR technique and the patient's tissue culture examination. The patient was therefore managed as a case of ITB. Clinical recuperation was observed in patient without any pathologic symptoms or signs.

Picture 1a. CT, Frontal section: An increase in the wall thickness of ileal ans, mesenteric contamination and mesenteric lymphoadenopathies

Picture 1b. CT, axial section: Transverse abdominal section: Tumor.

Picture 2. Ulcerated area of the ileocolonic anastomosis line with exudation.



Picture 3. Necrotic necrosis surrounded by Langerhans type giant cells.

Discussion

ITB is a rare form of extrapulmonary tuberculosis and usually occurs when the extrapulmonary tuberculosis stays latent form in the intestinal tract due to hematogenous spread in childhood and is reactivated with various predisposing factors (2). ITB may be presented with fever, weight loss, abdominal pain, hemorrhage, distension, diarrhea and abdominal mass (5). Laboratory findings generally include slightly anemia and increased sedimentation (6).

Bowel obstruction is the most common complication and may develop due to progressive strictures or adhesions (7-9).

ITB, CD and GIS malignancies are quite difficult bowel diseases in differential diagnosis due to similarities in endoscopy and clinical symptoms. Early diagnosis and treatment are effective in terms of prognosis and complications of patients. So, the differential diagnosis is critical in selecting the right treatment. Especially, the presence of similar disease that may cause the pathogenesis of the ileocolitis in our case reveals the importance of clinical suspicion. Immunosuppressive therapy which can be applied in the mind of any misdiagnosis as a result of CD thought, will compromise the progression of ITB and it will cause to a serious increase in morbidity and mortality. In addition to that, anti tuberculosis drug treatment to be administered in the patients, which have CD, will have consequences such as delaying the treatment of CD with a risk of drug toxicity (10,11).

PCR, microbiological culture, endoscopy, radiography and histopathological methods can be used in the diagnosis of ITB. Microbiological culture does not have sufficient sensitivity and only 71 percent of patients give positive results (12). Although PCR is a more specific diagnostic method, it's sensitivity is low (11). The most important imaging technique in ITB is contrast CT, as seen in our case, dilatation in the proximal GIS sections, stenosis, wall thickening and mesenteric multiple lymphadenopathy in the terminal area of ileum can be seen in most of the cases (13,14). The presence of caseous granulomas in the histopathological examination of transmural ulcers and biopsy material in colonoscopy may support the diagnosis, but it's sensitivity and specificity are not sufficient for the definitive diagnosis (15). Mycobacterium tuberculosis was not detected in PCR technique with tissue which has taken from our patient.

In conclusion, many methods are not sufficient in the diagnosis of diseases such as CD and ITB which may cause ileocolitis. The patient was therefore managed as a case of ITB. Systemic anti-tuberculosis drug treatment was started, and the clinical picture recovered. We think that ITB should be the first among the differential diagnoses at the beginning of the pathologies which may be cause ileocolitis, including CD with this case.

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