A case of tuberculous colitis mimicking Crohn's disease

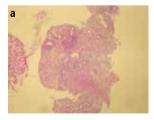
To the Editor,

Tuberculous colitis is a very challenging disease. The disease is difficult to diagnose and it is even harder to prove with absolute certainty (1). Evaluation of patients, colonoscopy, and blood and microbiological tests for the disease-causing mycobacterium are used for diagnosis. Tuberculous colitis occurs in 12.1% and 6% of cases with gastrointestinal and intra-abdominal tuberculosis, respectively (2). Tuberculous colitis usually affects the ileocecal region; therefore, it should be distinguished from Crohn's disease (1,3). Histopathological examination of colonoscopic biopsies is the primary criterion for the differential diagnosis of tuberculous colitis (3). Herein, we reported the case of a female who presented with diarrhea and in whom the endoscopic findings appeared quite similar to those observed in Crohn's disease.





Figure 1. a, b. Aphthous ulcers on the ascending colon **(a)** and cecum **(b)**.



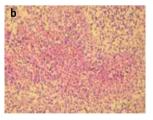


Figure 2. a, b. Diffuse inflammatory infiltration and ulceration of the bowel mucosa on histopathological examination **(a)**, localized necrosis of the granulomas with aggregation of gigantic cells **(b)**.

A 23-year old female was referred to our clinic with a 6-month history of non-hemorrhagic diarrhea, weight loss, and right lower quadrant pain. She also had a 2-day history of fever and chest pain. Upon physical examination, the patient appeared to be in poor condition. Her vital signs were as follows: axillary temperature: 38.5°C, heart rate: 96 beats/minute, blood pressure: 100/70 mmHq. Stool examination and culture were performed. All serological and laboratory findings were normal except for hematocrit (30.7%) and albumin (2 g/dL) levels. Abdominal and thoracic computed tomography (CT) scans revealed pericardial effusion, cardiomegaly, hepatomegaly, and minimal effusion in the Douglas pouch. Colonoscopy revealed aphthous ulcers on the ascending colon and cecum (Figure 1a, b). The remaining colon and terminal ileum were normal. Several mucosal biopsies were obtained from the lesions. Histopathological examination revealed diffuse inflammatory infiltration, ulceration of the bowel mucosa, and localized necrosis of the granulomas with aggregation of gigantic cells (Figure 2a, b). Polymerase chain reaction (PCR) analyses of biopsy specimens were positive for tuberculous. After 7 days of anti-tuberculosis medication, the patient died due to cardiac arrest.

In tuberculous colitis, the most commonly affected sites are the cecum, ileocecal valve, and terminal ileum (4). These are also the most common sites of Crohn's disease. In contrast to Crohn's disease, tuberculosis ulcers tend to be circumferential and are usually surrounded by inflamed mucosa, as was observed in our patient (Figure 1a, b). PCR (*M tuberculosis* DNA) is positive in 60% of colonic biopsies of patients (5). This form of detection has recently become the preferred method of differentiation between tuberculous colitis and Crohn's disease (6).

In conclusion, the distinction should be made between tuberculous colitis and Crohn's disease, which are similar in both clinical features and colonoscopic findings.

Address for Correspondence: Ümit Bilge Doğan, Department of Gastroenterology, Adana Numune Training and Research Hospital, Adana, Turkey E-mail: ubdoqan@hotmail.com

Received: June 06, 2012 **Accepted:** July 08, 2012

© Copyright 2014 by The Turkish Society of Gastroenterology • Available online at www.turkjgastroenterol.org • DOI: 10.5152/tjg.2014.3727

Conflict of Interest: No conflict of interest was declared by the authors.

Ümit Bilge Doğan¹, Mustafa Salih Akın¹, Serkan Yalaki¹, Pelin Demirtürk²

¹Department of Gastroenterology, Adana Numune Training and Research Hospital, Adana, Turkey ²Department of Pathology, Adana Numune Training and Research Hospital, Adana, Turkey

REFERENCES

- Rasheed S, Zinicola R, Watson D, Bajwa A, McDonald PJ. Intraabdominal and gastrointestinal tuberculosis. Colorectal Dis 2007; 9: 773-83.
- Dawson A. The respiratory system. In: Haubrich WS, Schaffner F, Berk JE. Bockus Gastroenterology, 5th edition. Philadelphia: WB Saunders; 1995.p.3404-19.

- 3. Hamilton RS, Morson BC. Crohn's Disease Part 1 (Pathology). In: Haubrich WS, Schaffner F, Berk JE. Bockus Gastroenterology, 5th edition. Philadelphia: WB Saunders; 1995.p.1398-409.
- 4. Singh V, Kumar P, Kamal J, Prakash V, Vaiphei K, Singh K. Clinico-colonoscopic profile of colonic tuberculosis. Am J Gastroenterol 1996; 91: 565-8.
- Anand BS, Schneider FE, El-Zaatari FA, Shawar RM, Clarridge JE, Graham DY. Diagnosis of intestinal tuberculosis by polymerase chain reaction on endoscopic biopsy specimens. Am J Gastroenterol 1994, 89: 2248-9.
- Gan HT, Chen YQ, Quyang Q, Bu H, Yang XY. Differentiation between intestinal tuberculosis and Crohn's disease in endoscopic biopsy specimens by polymerase chain reaction. Am J Gastroenterol 2002, 97: 1446-51.