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Case Report Open Access

Inflammation Bowel Diseases and Tuberculosis Infection

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Introduction

Inflammatory Bowel Diseases (IBD), including Crohn's disease (CD) and ulcerative colitis, are chronic inflammatory conditions due to a variable breakdown reaction. Ulcerative colitis (UC) is a chronic inflammatory disease characterized by mucosal inflammation that begins distal to the rectum and continues for a variable distance proximally, there is often a sharp boundary between inflamed and non-inflamed mucosa. Typically, patients with UC experience periods of relapse and remission [1-2] Crohn's disease is a complex, chronic inflammatory gastrointestinal condition that varies in age of onset, disease location, and behavior.[2] Intermittent attacks of the disease, ileal involvement and granulomatous inflammation are more suggestive of Crohn's disease, as is the tendency to inflammation in the proximal colon. In 5–15% of IBD patients, endoscopic and histological assessments cannot distinguish between Crohn's colitis and UC, and these patients are labelled as IBD-unclassified (IBD-U).

Differentiating between intestinal tuberculosis (ITB) and Crohn's disease may be challenging in those who have lived in endemic areas as clinical features may be similar. Features suggestive of a diagnosis of intestinal TB include night sweats, concomitant pulmonary tuberculosis, positive tuberculin skin test, antibodies to TB, abdominal lymphadenopathy, ascites AND transverse ulcers. The frequency of extra-pulmonary tuberculosis is firstly the lymph node, then the genitourinary system, and the third intestinal system.

The difference between IBD and ITB needs to be understood in terms of treatment. If the patient ıs initiated with IBD treatment instead of ITB, it may cause a worsing of the patient's clinic conditions due to immune suppressive treatment, such as corticosteroids and anti-tumor necrosis factors.

Case Report

1. In 2010, a 31-year-old male patient applied to the policyclinic with bloody diarrhea and weight loss. Hıs complaints first started at the age of 26.

The patient's first colonoscopy was considered in favor of ulcerative colitis.

Mesalamine and enema were started and he was called for control after 15 days.

The patıent, who came for control 15 days later, stated that his diarrhea continued. The patient's treatment dosage was increased and he was called for a re-control.

Pathology report received from the patient, chronic (active) diffuse colitis,Low grade dysplasia concluded.

The patient who came to show the biopsy results and re-control, stated that his complaınts had not decreased.Corticosteroid treatment was started.

After corticosteroid treatment started, the patıent's complaınts decreased. He had regular colonoscopy and biopsy taken during this process.

He received the same treatment for 10 years. Even if it was recommended to discontinue corticosteroid, continued with his own will.

After reducing the corticosteroid dosage, the patient applied wıth the complaint of defeacation 15-18 times a day and lost 20kg in 4 months.

The patient was started on Infliximab, Azathioprine along wıth mesalamin. He receıved 4 doses of infliximab His diarrhea continued 7-8 times a day.

2. In 2021, the IGST test taken from the patient was positive. His tuberculosis treatment has started. Bıopsy result taken during colonoscopy diffuse active colitis concluded.

3. İn 2023,the patient's colonoscopy: linear large ulcer and fistula orifice were observed. lead pipe deformity developed. Ileocechal valv was observed to be ulcered and deformed(crohn).

After his colonoscopy in 2023, he was admitted to the hospital due to fever. He had left inguinal pain for about 2 months. Thrombosis was not detected as a doppler result. MRI was performed on the patient and ıt resulted in iliopsoas abscess.

The abscess was drained by the general surgery and the result of the abscess culture was explained as tuberculosis. Anti-tuberculosis treatment has started.

The patient was transferred to intensive care due to tachycardia and low saturation.

The patıent, who was followed in the ICU, was suddenly intubated due to cardiopulmonary arrest and was returned after 35 minutes of CPR. He was followed as intubed.

After 7 days,massive bloody diarrhea started. PPI ınfusion and somatostatin infusion was started to the patient. After 13 days,the patient died in the ICU, despite of all the interventions.

Discussion

İn 2010, 31-year-old male patient applied to the polyclinic wıth bloody diarrhea and weight loss. His complaints first started when

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he was 26 years old. The patient's first colonoscopy was considered in favor of ulcerative colitis.

LAB: ANTİ HBS (MIKRO) Negatif IU/Ml, ANTİ HIV(MACRO) Negatif, ANTİ HCV(MACRO) Negatif, ANTİ HBC TOTAL(MACRO) Negatif, HBSAG(MACRO) Negatif,

Total Bılırubın 0, 2 mg/dL

Direct Bılırubın 0, 2 mg/dL

AST 15 U/L

ALT 19 U/L

ALP 62 U/L

GGT 30 U/L

LDH 146 U/L

HGB 6, 2 g/dL

HCT 21, 2 %

PLT 713 10^3/ML

Sedimentation 120 mm/H

PTZ - INR 1, 2

APTT 26, 8 sn

CMV PCR NEGATİF

İGST NEGATİF

The patient was on mesalamine and enema + corticosteroid started. After 10 years of treatment the patient was started on Infliximab, Azathioprine along with Mesalamin. He received 4 doses of ınfliximab.

In 2021, the IGST test taken from the patient was positive. His tuberculosıs treatment has started.

LAB: CRP 2, 25 mg/Dl

Albumin 3, 6 g/dL

Total Bilirubin 0,3 mg/dL

Direct Bilirubin 0,07

AST 34 IU/L

ALT 35 IU/L

ALP 184 IU/L

GGT 187 IU/L

LDH 163

HGB 12 g/dL

HCT 41, 1 %

CMV PCR NEGATİF

IN 2022, the IGST test taken from the patient was negatif.

LAB: CRP 3, 33 mg/dL

Albumin 3, 8 g/dL

Total Bilirubin 0, 3 mg/dL

Direct Bilirubin 0, 04 mg/dL

AST 22 U/L

ALT 20 U/L

ALP 72 U/L

GGT 24 IU/L

LDH 136 U/L

HGB 11, 6 g/dL

HCT 38 %

Sedimentation 26 mm/H

İn 2023, he had left inguinal pain for about 2 months. Thrombosis was not detected as a doppler result. MRI was performed on the patient and it resulted in iliopsoas abscess . The abscess was drained by the general surgery and the result of the abscess culture was explained as tuberculosis. Anti-tuberculosis treatment has started.

LAB

Albumin 2, 7 g/dL

Total Bilirubin 0, 31 mg/dL

Direct Bilirubin 0, 07 mg/dL

AST 18 U/L

ALT 14 U/L

ALP 76 U/L

GGT 78 IU/L

LDH 212 U/L

AMİLAZ 90 U/L

LİPAZ 41, 9 U/L

HGB 7.60 g/dL

HCT 22.90 %

PTZ - INR 1, 29

PTZ - sn 15, 3 sn

CRP 11, 5

TBC PCR NEGATİF

CMV PCR NEGATİF

Clostridium difficile NEGATİF

The cause of the patient's fırst cardiopulmonary arrest was not understood.

Very resıstant Klebsıella Pneumonıae was grown ın the blood culture of the patıent who continued to be Icutated.

The patient is considered to exitus due to sepsis.

Conclusion

Due to the similarities between CD and gastrointestinal TB (GITB) It can be difficult to distinguish between the two diseases:

- There are significant similarities in the clinical, radiological, endoscopic, surgical, and histological features of CD and gitB (which typically occurs in the ileocecal region).

- CD and giTB are both granulomatous conditions that can involve any part of the gastrointestinal tract;
- There is no simple test that can be used to reliably distinguish CD from gitB.

Patients with IBD frequently develop serious infections resulting from the disease itself or its treatment [3]. Although some patients may be asymptomatic, common symptoms of Gastrointestinal (GI) tuberculosis (TB) are fever, anorexia, weight loss, nausea/vomiting, abdominal pain, diarrhea, and sometimes constipation. Hematemesis and melena are uncommon. On physical examination, signs such as abdominal distension, ascites, hepatomegaly, splenomegaly, rectal bleeding may be detected depending on the involved area of GI tract [4]. 10% of people infected with tuberculosis develop active tuberculosis, and the remaining 90% have latent tuberculosis infection (LTBI); this infection does not require treatment because tuberculosis bacteria are present in the body but their activity is suppressed and there are no symptoms or contagiousness [5]. Latent tuberculosis (TB) infections (LTBI) pose clinical challenges for the diagnosis and treatment of inflammatory bowel disease (IBD) especially in TB-endemic areas. While steroids and biologics are becoming increasingly useful in treating patients with moderate to severe IBD, the risk of developing reactivation or TB increases due to their strong immunosuppressive effects [5]. Tumor necrosis factor-alpha inhibition can lead to activation of latent TB infection, and most cases present as more severe forms of disseminated TB [5].

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