CASE REPORT

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Iliopsoas Abscess, an Unusual Presentation of Crohn's Disease

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ABSTRACT A 26-year-old female patient with no previous medical history presented with a complaint of right hip pain and fever for 5 days. On physical examination, the psoas sign was positive. Laboratory tests showed elevated white blood cells and C-reactive protein. The patient had no genitourinary or gastrointestinal system complaints. The vertebral lumbar disc computed tomography and pelvic magnetic resonance imaging revealed sacroiliitis and psoas abscess. With these findings, colonoscopy was performed for suspicion of extraintestinal manifestations of Crohn's disease (CD). CD was confirmed by endoscopically and hystopathologically. This case aims to provide awareness that intraabdominal pathology should always be suspected in patients with hip pain by comprehensive physical examination and imaging, and to emphasize that especially the onset of CD may occur with only extraintestinal symptoms such as sacroiliitis and psoas abscess.

Keywords: Abscess; Crohn's disease; hip pain; sacroiliitis

Crohn's disease (CD) is a relapsing chronic inflammatory bowel disease with an unclear etiology that can occur anywhere in the gastrointestinal tract.[1]

Signs and symptoms of CD vary depending on the severity of the disease and the organ involved.[2] While CD may present with symptoms such as fatigue, fever, defecation disorder or abdominal pain, it may also cause extra-intestinal findings such as arthritis, sacroiliitis, uveitis, primary sclerosing cholangitis and erythema nodosum. These extraintestinal manifestations can cause serious morbidity even more than the bowel disease itself. The most common extraintestinal involvement in CD was arthritis, and sacroiliitis was found to be the second most common.[3]

Among abscesses caused by CD, iliopsoas muscle abscesses (IMA) are relatively rare (0.4-4.3%) with nonspecific manifestations and psoas abscess formation in patients with CD can be insidious.[4] In a literature review conducted by Ricci et al. with 89 cases, CD was found to be the most common cause of secondary psoas abscess in 55% of cases.[5] Additionally, numerous cases of psoas abscess due to CD have been reported in the literature.[6]

We report a patient with CD who presented with only right hip pain and fever before showing the typical gastrointestinal symptoms of CD, and whose imaging revealed sacroiliitis and IMA.

CASE REPORT

A 26-year-old female patient applied with fever and right hip pain for 5 days. Despite using oral and intramuscular nonsteroidal anti-inflammatory drugs, she was admitted to our hospital due to worsening general condition and hip pain. There was no known disease history or suspicious sexual intercourse. She

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had no genitourinary or gastrointestinal system complaints.

On admission, her body temperature was 38.3°C, other vital signs were normal. Physical examination revealed a positive psoas sign and costovertebral angle tenderness without abdominal tenderness, and there was no edema, redness or hemorrhage of the lower extremities, and injection sites were normal.

Her laboratory findings; white blood cell (WBC): 14020 cells/μL (neutrophil percentage, 84.4%), CRP: 161,1 mg/L, and erythrocyte sedimentation rate (ESR): 33 mm/h. In addition, hemoglobin: 10.7 g/dL, serum iron: 45 μg/dL, total iron binding capacity: 205 μg/dL and ferritin: 139.6 ng/mL. There were normal liver or kidney functions and serum lactate dehydrogenase. Creatine kinase: 303 U/L (It was considered secondary to intramuscular injection). Urine analysis is normal and urine culture was negative.

The HIV antibodies, antinuclear antibodies, extractable nuclear antigen antibodies, anti-cardiolipin antibodies Immunoglobulin G (IgG) and Immunoglobulin A (IgM), anti-beta-2-glycoprotein-I antibodies Immunoglobulin A (IgA), IgG and IgM, lupus anticoagulants, and anti-neutrophil cytoplasmic antibodies, brucella rose bengal and Wright test, quantiferon test for tuberculosis and human leukocyte antigen B27 were all negative.

Vertebral lumber disc computed tomography (CT) revealed irregularity in bilateral sacroiliac joints (Figure 1) and in contrast-enhanced pelvic magnetic resonance imaging (MRI), effusion was observed in the right sacroiliac joint space, intense edematous signal changes along the iliac muscle in its anterior neighborhood, and abscess formation within the muscle reaching approximately 14x11x54 mm diameter were detected; and these findings were compatible with septic sacroiliitis (Figure 2). However, no communication was observed between the intestinal tract and the abscess.

The samples obtained by CT-guided drainage from the effusion in the right sacroiliac joint space and the abscess in the iliopsoas muscle had the appearance of bloody pus (Figure 3). Coagulase negative Staphylococcus was grown in the abscess culture.

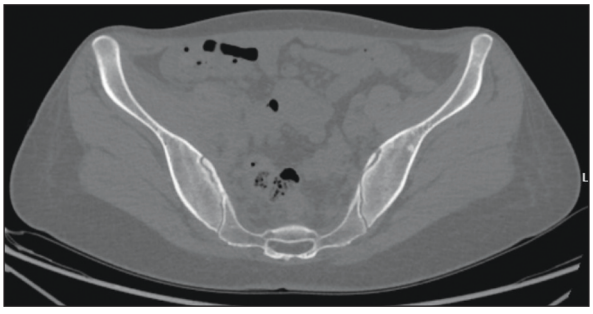

FIGURE 1: Vertebral lumber disc computed tomography: Irregularity in bilateral sacroiliac joints.

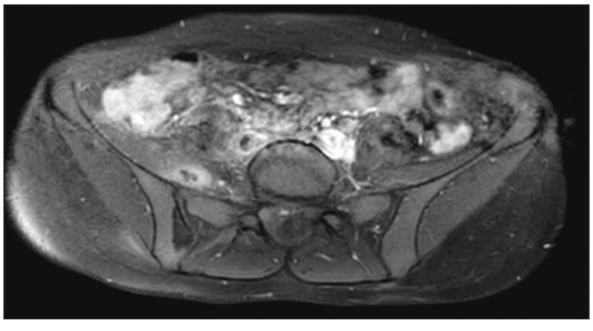

FIGURE 2: Contrast-enhanced pelvic MRI: Effusion in the right sacroiliac joint space, intense edematous signal changes along the iliac muscle in its anterior neighborhood, and abscess formation within the muscle reaching approximately 14x11x54 mm diameter.

Due to sacroiliitis and IMA, colonoscopy was performed for suspicion of extraintestinal manifestations of CD. Colonoscopy revealed widespread ulcerated lesions in the terminal ileum (Figure 4). In its pathology; loss of terminal ileum surface epithelium with ulceration, epithelitis; loss of focal areas in crypts; an increase in lymphoplasmacytic cells and lymphoid hyperplasia were observed in the lamina propria. A tuberculosis culture was sent from the sample and was found negative.

Since the patient had IMA and sacroiliitis, and endoscopic and histological findings supported CD; the patient was started on budesonide (Ali Raif Ilac, Türkiye) 3*3 mg and sulfasalazine (Pfizer, Türkiye) 3*500 mg.

With the abscess drainage and intravascular antibiotic therapy, analgesic drugs, and oral budesonide and sulfasalazine, the patient's complaints gradually

FIGURE 3: The samples obtained by computed tomography-guided drainage from the effusion in the right sacroiliac joint space and the abscess in the iliopsoas muscle.

FIGURE 4: Ulcerated lesions in the terminal ileum in colonoscopy.

improved; and WBC and CRP were decreased. And she was discharged with sulfasalazine and budesonide.

After 2 weeks, she stated that her complaints almost disappeared, and WBC, CRP and ESR returned to normal. On radiological control with contrast-enhanced pelvic MRI, it was observed that the abscess had almost regressed, but sacroiliitis still continued. The patient was advised to continue treatment and follow-up.

Required consent for participation was obtained from the patient. She has approved the publication of her information.

DISCUSSION

Psoas abscess is an uncommon and often misdiagnosed infection. The incidence is generally low (0.4 per 100,000 people), and diagnosis is often difficult given the nonspecific presentation.[7]

Psoas abscess may result from lymphatic or hematogenous spread. And also, it is possible for an abscess to form directly in cases such as CD, diverticulitis, urinary tract infections, osteomyelitis and infectious sacroiliitis.[8]

IMAs caused by CD have nonspecific findings; this makes the diagnosis of IMAs quite difficult.[4] The hip pain, fever and flank pain are the classic symptoms, however, only 30% of the patients with psoas abscess initially present with this triad.[7,9] Our patient also had these complaints.

Increased WBC, CRP, and ESR are often found in cases of psoas abscess.[10] In our case, these parameters were also elevated. Imaging is necessary to confirm the diagnosis of psoas abscess, and generally the contrast-enhanced CT/MRI of the abdomen and pelvis is used.[11] Consistent with our case, Christodoulou et al. reported a case of CD in a young patient with hip pain who was found to have a psoas abscess on radiological imaging; this situation emphasizes that clinicians should not ignore the possibility that hip pain may be due to intra-abdominal pathology.[12]

The most useful and reliable method for the diagnosis of CD is colonoscopy; but before gastrointestinal endoscopy is performed, the condition of the gastrointestinal tract must be evaluated, especially for penetration, perforation, fistula or stenosis.[13] In our patient, widespread ulcerations in the terminal ileum were detected on colonoscopy, consistent with CD; however, no intestinal penetration and fistulas was observed in endoscopic and radiological imaging.

In CD patients, treatment usually involves corticosteroids, immunosuppressive agents or biological agents. However, in addition to these treatments, CD patients with intestinal fistula or abscess may require surgical and antibiotic treatment.[14] The literature has shown that the majority of small abscesses requiring

drainages can be effectively aspirated under CT guidance.[15] In our patient who continued to use steroids and immunosuppressive agents for CD, there was no recurrence of IMA after percutaneous drainage.

The patient in this case appeared a CD with rare systemic symptoms without showing typical gastrointestinal findings upon diagnosis of IMA and sacroiliitis. According to our experience, which is similar to the cases in the literature, it is important to always include CD in our differential diagnosis if sacroiliitis and IMA are detected in a patient, even if there are no typical signs and symptoms of CD or a history of this disease.

Our aim in this study is to present a newly diagnosed case of CD, who presented only with hip pain and fever; and to emphasize the importance of physical examination, accurate differential diagnosis and imaging in the diagnosis of this insidious disease which does not always present with a usual symptom.

Source of Finance

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Esra Bayar, Meltem Ergün;* ***Design:*** *Esra Bayar, Meltem Ergün;* ***Control/Supervision:*** *Meltem Ergün, Yaşar Küçükardalı;* ***Data Collection and/or Processing:*** *Esra Bayar, H. Alphan Şeküri;* ***Analysis and/or Interpretation:*** *Esra Bayar, Meltem Ergün;* ***Literature Review:*** *Esra Bayar, H. Alphan Şeküri;* ***Writing the Article:*** *Esra Bayar;* ***Critical Review:*** *Meltem Ergün, Yaşar Küçükardalı.*

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