

An Atypical Case of Psoas Abscess in an Elderly Patient

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Abstract

Psoas abscess (PA), the accumulation of suppurative fluid in the fascia surrounding the psoas muscle, is a rare condition, with difficult diagnosis. Pain, fever, and limping are its main symptoms. In this paper, we report a case of PA presenting with non-specific symptoms, such as pain and fatigue. After the diagnosis, drainage of PA was performed, and intravenous antibiotic treatment was started immediately. The patient was discharged with improvements in his general condition after three weeks of treatment. This case suggests that PA should be considered in geriatric patients presenting with nonspecific symptoms such as fatigue, loss of appetite and weight loss as well as waist and hip pain. Early diagnosis may significantly decrease the risk of morbidity and mortality.

Keywords: Psoas abscess, fever, hip pain, fatigue, weight loss

Introduction

Psoas abscess (PA) is a condition due to accumulation of suppurative fluid in the fascia surrounding the psoas muscle, which has an important role in the flexion of the trunk (1). It is rarely encountered and difficult to diagnose. For example, it is reported in a study (2) that the mean time span between the onset of symptoms and PA diagnosis was found to be 22 days with one third of patients diagnosed after 42 days. PA may be classified as primary or secondary, depending on the original location of the underlying infection. Primary PA usually occurs as a result of the transport of an infection via a hematogenous or lymphogenesis route from a remote infection site in the body (3). Its main risk factors are diabetes mellitus, intravenous drug use, human immunodeficiency virus infection, and renal failure (4). On the other hand, secondary PA is caused by the spread of an infection in the neighborhood of psoas muscle such as sigmoid colon, jejunum, ureter, abdominal aorta, kidneys and vertebrae. Main risk factors of secondary PA are trauma and interventional procedures (5).

While, the most common bacterial cause of PA is *Staphylococcus aureus* worldwide, *Mycobacterium tuberculosis* is also seen commonly in developing countries. Pain (91%) and fever (75%) are two most common complaints of patients applying

to the clinic. Furthermore, limping, weight loss, and weakness can be seen in these patients (4). PA is treated with the use of appropriate antibiotics along with drainage of abscess. Even though prognosis of PA is good in cases with early treatment, mortality rate increases if diagnosis is delayed or unless drainage is successfully done.

Case Presentation

A 78-year-old male patient admitted to our clinic with pain in his left hip that had begun one month ago. The patient, who had been functionally independent before pain, stated that he could not perform instrumental activities of daily living anymore and that there had been a loss of appetite accompanied by approximately weight loss of 5 kgs (i.e., 7% of his body weight). As opposed to common characteristics of PA, the patient did not have a fever. Furthermore, the patient did have neither night sweats nor morning stiffness.

Before applying to our clinic, the patient had presented to physical therapy and rehabilitation, orthopedics and neurosurgery clinics with the same complaints. There, the patient had been diagnosed with lumbar disc herniation and osteoporosis for which calcium and vitamin D had been started as a treatment. Then, he admitted to our clinic with no regression

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in his complaints. Past medical history of the patient includes vitiligo diagnosed 50 years ago and cataract surgery as the only operation. The patient had no history of prostate cancer or prostate biopsy. It was found in the geriatric assessment that the patient did not have forgetfulness, depression, falls, urinary incontinence and constipation. On physical examination, blood pressure was 120/80 mmHg, pulse was 65 beats/min, body temperature was 36.8 °C, muscle strength in left hip flexion was 4/5, left hip movements were painful, and there was no heat increase, redness and swelling on hip. There were no significant features in other system examinations.

Comprehensive geriatric assessment was done. Laboratory values are presented in Table 1. Results of microbiological cultures, brucella, and tuberculosis screening tests were negative. No abnormalities were found in radiographs of chest, sacroiliac, and pelvis. Screening for malignancy was planned from the patient who had high sedimentation rate, weight loss and iron deficiency. Multiple myeloma was not detected. Rheumatologic markers were negative except weak antinuclear antibody positivity. Because of the lumbar disc herniation, he was referred to neurosurgery where analgesic was recommended. The hip ultrasound revealed that there was a septated cystic structure with hypoechoic and hyperechoic areas on the medial side of iliopsoas muscle, which implies the PA. Diagnosis of PA was then confirmed by the computed tomography (CT), which is given in Figure 1. CT-guided drainage was performed. Cell count of the sample taken from abscess drainage revealed that there exists 35000/mm³ leukocytes. Acid resistant bacteria and cytology results were negative. He was started on sulbactam-

ampicillin. *S. aureus* was the etiologic agent in abscess culture. Upper and lower gastrointestinal endoscopy was performed to investigate iron deficiency and primary focus of PA. Multiple diverticula were found in the entire colon. He started to walk without pain after abscess drainage and antibiotic treatment. Patient discharged after three weeks of antibiotic therapy. One month later, patient admitted to outpatient clinic, control laboratory values are presented in Table 1.

Discussion

In this case, clinical features of PA, which are difficult to diagnose and which may be atypical in geriatric age group,

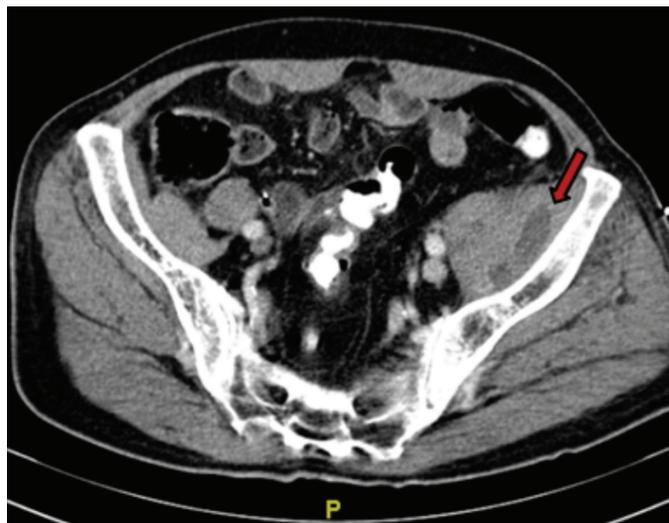


Figure 1. Psoas abscess in the transverse section of computed tomography image at the S2-S3 level

Table 1. Laboratory values of admission and control of the patient			
	Admission	Control	Normal range
Hemoglobin (g/dL)	11	12.9	12.6-17.4
MCV (fL)	93.6	93	81-103
WBC (x10 ⁹ /L)	8.09	9.04	4.5-11
Platelet (x10 ⁹ /L)	376	265	150-400
FPG (mg/dL)	98	96	74-100
Creatinin (mg/dL)	1.08	1.05	0.67-1.17
BUN (mg/dL)	26	17	8-23
GFR (mL/min/1.73 m ²)	65	68	>60
ALT (U/L)	49	13	<50
AST (U/L)	30	23	<50
GGT (U/L)	144	55	<55
ALP (U/L)	206	191	30-120
Sedimentation (mm/hr)	102	40	<20
CRP (mg/L)	178	9	<5
Ferritin (ng/mL)	723	703	23-336
Transferrin saturation (%)	8	24	13-45

MCV: Mean corpuscular volume, WBC: White blood cell, FPG: Fasting plasma glucose, BUN: Blood urea nitrogen, GFR: Glomerular filtration rate, ALT: Alanine aminotransferase, AST: Aspartate aminotransferase, GGT: Gamma glutamyl transferase, ALP: Alkaline phosphatase, CRP: C-reactive protein, min: Minimum

are emphasized. Our case admitted with complaints of severe hip pain, weakness, and loss of appetite. There were no risk factors such as immune suppression, diabetes, and renal failure, which facilitate PA development. Furthermore, the patient did not have fever which is actually a classical symptom of PA (6). Generally, absence of symptoms such as fever, shivering or sweating may suggest no infection which makes diagnosis of PA difficult in our case. This is in line with the general situation of PA diagnosis in older population due to its atypical course and complications such that even sepsis can be seen in some cases (6). Therefore, in older patients with severe abdominal and low back pain, PA should be considered even if there is no fever. Imaging must be performed for definitive diagnosis. Among available techniques, CT is the most appropriate method being able to provide information about causes of secondary PA in addition to diagnosis (7). Alternatively, magnetic resonance imaging can be used since it identifies soft tissues well without any use of contrast. However, ultrasound is not suggested due to its lower diagnostic rate reported to be 48% in a study (8).

In our case, we think that PA was secondary occurring as a result of diverticulosis. Colon pathologies are the second most common cause of secondary PA following the infection of the spine as the number one reason (9). Finally, after diagnosis is made quickly, open or percutaneous abscess drainage should be performed for treatment along with the use of antibiotics against the infectious agent, as we did in our case.

In this paper, we reported a case of a 78-year old male with PA which is a rare condition that might present with an atypical clinical course in geriatric age group compared to young people. Although fever and pain are its most common symptoms, fever may not be seen in older patients. Furthermore, patients with nonspecific symptoms such as fatigue, loss of appetite, waist and hip pain may be suffering from PA. Therefore, atypical presentations should always be kept in mind in geriatric age group, as presented in our case of a PA without fever.

Ethics

Informed Consent: Informed consent was obtained from the patients.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: Ç.C., M.V., Concept: Ç.C., M.V., Design: S.A., Ç.C., Data Collection or Processing: Ç.C., R.B., H.S.Ö., Analysis or Interpretation: Ç.C., V.A., A.Y., Literature Search: Ç.C., Writing: Ç.C., M.V.

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