

Iliopsoas Haematoma: A Rare Complication of Warfarin Therapy

Omer Faruk Ozkan¹, Ali Guner¹, Arif Burak Cekic¹, Turhan Turan², Umit Kaya¹ and Erhan Reis¹

ABSTRACT

Iliopsoas haematoma is a rare complication that occurs in patients receiving anticoagulant therapy. The clinical manifestation of iliopsoas haematoma is non-specific. It can mimic orthopaedic or neurological disorders, including paraesthesia or paresis of the thigh and leg due to compression of the nerve plexus. Among the many available diagnostic modalities, computed tomography is the most useful radiological method for diagnosis. Treatment approaches for iliopsoas haematoma include conservative therapy, surgical intervention, or transcatheter arterial embolisation. Conservative therapy consists of bed rest, restoration of circulating volume, and drug discontinuation for correcting underlying coagulopathy. Although a conservative approach is the first choice, transcatheter arterial embolisation and surgical intervention may be required in patients with hemodynamically unstable and active bleeding. The report described a case of iliopsoas haematoma due to anticoagulant therapy with paraesthesia in the left leg who was successfully treated by conservative approach.

Key words: *Iliopsoas haematoma. Warfarin. Conservative treatment.*

INTRODUCTION

Haemorrhage is reported in approximately 4% of patients receiving anticoagulant agents, especially Heparin and Warfarin.^{1,2} Major locations of haemorrhage in these patients include intracranial and retroperitoneal sites.³ Retroperitoneal is most common in patients with trauma, hemophilia, or under treatment with anticoagulants.⁴

Iliopsoas haematoma is a rare complication associated with bleeding diathesis, trauma, and anticoagulant therapy. Symptoms of iliopsoas haematoma are non-specific, and may include muscle dysfunction and abdominal or flank pain radiating into the groin, labia, or scrotum. Compression of the femoral nerve, which runs along the iliac muscle through the femoral canal, by the haematoma can lead to paraesthesia or paresis of the thigh and leg.⁵ Depending on the rapidity of haemorrhage and volume of blood loss, massive bleeding or shock may also be present. Diagnosis is based on clinical manifestations and imaging studies such as ultrasonography and contrast-enhanced computed tomography (CT). On CT, iliopsoas haematoma appears as a high density mass in the retroperitoneal space, with enlargement of the involved muscles.⁶ Treatment of iliopsoas haematoma is generally conservative, with correction of the coagulation profile. Interventional radiological or surgical treatment may be

required in patients with haemodynamically unstable and active bleeding.¹⁻³

Here, we report a case of iliopsoas haematoma in an old woman during use of warfarin who was treated conservatively.

CASE REPORT

A 74-year-old Caucasian female patient was admitted to the emergency department with complaint of lower quadrant abdominal pain and paresis in the left leg. Her symptoms had begun 5 days earlier. Previous medical history included a pulmonary embolism 3 months earlier, which was being treated with 5 mg/day warfarin sodium for thromboprophylaxis. On admission, she was haemodynamically stable. Examination revealed thigh bruising surrounding the left groin and tenderness on the left side of the abdomen. She reported paraesthesia over the anterior thigh. On neurological examination, left crural monoparesis with pain was revealed.

Laboratory test results were haemoglobin of 7.2 g/dL; leukocyte count of 13800 mm³; prothrombin time of 21.6 seconds (normal, 10 – 14 seconds); international normalized ratio (INR) of 5.4; and abnormal liver function tests. Enhanced CT of the abdomen showed the presence of a haematoma of the left iliacus and psoas muscles (Figure 1).

A conservative approach was performed for iliopsoas haematoma. Warfarin was stopped. Five units of fresh frozen plasma and intravenous vitamin K were administered for correction of the coagulation profile. The patient was discharged 8 days later with a stable haemoglobin level and an INR of 1.2. On discharge, left leg pain had resolved, but anterior thigh paraesthesia persisted.

¹ Department of General Surgery, Trabzon Numune Training and Research Hospital, Trabzon, Turkey.

² Department of Cardiology, Akcaabat State Hospital, Trabzon, Turkey.

Correspondence: Dr. Omer Faruk Ozkan, Department of General Surgery, Trabzon Numune Training and Research Hospital, Trabzon, Turkey.

E-mail: ozkanfomer@gmail.com

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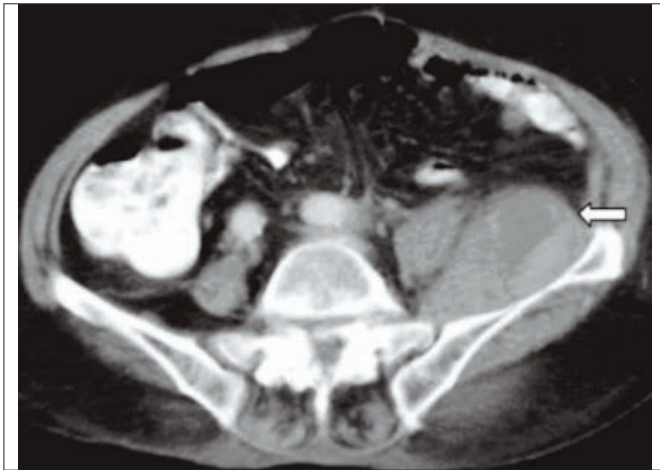


Figure 1: Computed tomography of the abdomen shows a left-sided iliopsoas haematoma (arrow).

DISCUSSION

Iliopsoas haematoma is a rare complication of anti-coagulant treatment. In 2008, Kurdoglu *et al.* reported iliopsoas haematoma and fetal loss following heparin administration. Zissin *et al.* performed a retrospective review of CT images of cases of haematoma due to anticoagulant use.⁷ Retroperitoneal haemorrhage was the most common, followed by iliopsoas and rectus-sheath haematomas.⁷ Although usually unilateral, a few cases of bilateral iliopsoas haematoma have been reported in the literature.^{3,8}

Treatment of iliopsoas haematoma is controversial. A conservative approach is generally sufficient in cases with small haematomas and mild neurological symptoms. This approach consists of bed rest, restoration of the circulating volume, and drug discontinuation for correcting underlying coagulopathy. A case of bilateral iliopsoas haematoma was reported in an 81-year-old woman undergoing anticoagulant therapy after coronary artery bypass surgery, which was successfully treated by conservative approach.⁸ To ensure stability of the hemodynamic status of the patient and radiological

imaging, conservative therapy was successfully used for the patient. Transcatheter arterial embolization (TAE), which is reportedly safer than surgery, is an alternative procedure for hemodynamically unstable patients.⁷ Surgical intervention may be indicated for cases in which the haematoma is large or symptoms are intensive.

Iliopsoas haematoma should be considered in any patient who is admitted to the emergency department with femoral neuropathy and is currently under treatment with anticoagulant therapy.

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