Hematoma - Abscess of the Psoas and Hemophilia: About an Adult Case

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Abstract
The authors reported the case of a 25-year-old man who complained of pain in the left flank. The sonography exam suspected an abscess more than an hematoma of the left psoas muscle. Urgent surgery did not find the abscess. The biology pointed out a moderate form of haemophilia, Type A. The bedrest and the dressings were efficient on the patient. Follow-up sonography exams revealed a liquefaction of the hematoma. The clinical evolution was right.

Introduction
Hemophilia is a hereditary bleeding disorder sex-linked recessive transmission. There are two varieties: a deficiency of factor VIII (Hemophilia A) or deficiency of factor IX (Hemophilia B). The reported incidence rate of hemophilia is approximately one of every 5000 males. The discoveries circumstances are sometimes during a routine examination in a context of family investigation or before surgery, but most often it is bleeding events [1-2]. Hematoma of the psoas muscle in hemophilic adult is not common. We report an adult case that had an uncommon aspect, mimicking an abscess on ultrasound.

Case Presentation
A 25-year-old man was hospitalized for sudden onset pain, permanent, moderate, and constant, sitting in the left flank and radiating to the front of the thigh and relieved by sitting. In the history of the disease, we found the same symptoms treated with traditional massage but the pain persisted. No trauma event was identified.

General condition of the patient was maintained with a low-grade fever at 37.5°. Palpation found a steady mass in the left flank.

Ultrasound of the left flank showed a heterogeneous hypoechoic tissue formation (17 cm of high, 10 cm in diameter) with a low posterior enhancement but no vascularization was detected in Doppler test. This formation had a thick wall and was located in the left psoas muscle (Figure 1). Those appearances were suggestive of an abscess. The left psoas incision through posterior approach did not reveal an abscess.
Ultrasound of the left flank showed a heterogeneous hypoechoic tissue formation with a low posterior enhancement (arrow) and thick wall (arrow-head) located in the left psoas muscle.

Biological examination performed after the surgical procedure showed speed erythrocyte sedimentation at first hour accelerated to 150 mm, a severe normochromic normocytic anemia, discrete leukocytosis (58,109/1), partial thromboplastic time (PTT) extended to 120s/31s with prothrombin time to 14s/12s, an extended PTT corrected after the addition of normal plasma, a low factor VIII to 1-5% (normal > 25%), and prothrombin rate to 92%. The patient blood type was 0+.

Ultrasound examination performed on the fifteenth day revealed that the formation size was consistent with that upon first exam, very hypoechoic containing moving echoes and posterior enhancement, for a liquefied hematoma with the same thick wall. A comparative examination of the right psoas found a thickening in favor of asymptomatic hematoma.

Evolution was good and patient was discharged on the thirtieth day with the diagnosis of moderate form of hemophilia A.

**Discussion**

Hemophilia is a congenital disorder of the coagulation, transmitted as recessive and sex-linked. In moderate hemophilia (Factor VIII or IX: 1-5%), spontaneous bleeding is rare; it is essentially bleeding after insignificant injuries. The most common are muscle and joint bleeding. Psoas bleeding as retroperitoneal bleeding must be taken attentively because they may simulate acute gastritis [1]. As in all serious bleeding, hematoma can cause nerve compression [2]. Our case corresponds with the description in the literature of spontaneous bleeding of the psoas muscle in which hematoma is common and palpation may show mass in the iliac fossa [2-5]. Diagnosis may be difficult in the early phase [1]. Disease begins with moderate pain at the groin with hip flexion.
in medial rotation; extension is impossible [4].

Emergency ultrasound can objectify the hematoma as a rounded appearance of the psoas muscle and an enlargement in its thickness [2, 4-5]. In a known hemophiliac, ultrasound provides essential information in the site of bleeding: retroperitoneal and/or muscular [4] and allows early and adequate treatment of the hematoma [6]. Pseudo-abscess form may present in chronic hematoma [7]. Our case is viewed in early phase and confused with a psoas abscess because of presence of a thick wall.

CT is more specific than ultrasound by showing the density and evolution of the hematoma [8-9]. The diagnosis of hemophilia is mainly based on biology with simple tests.

Medical treatment consists of coagulation factor [10]. The recommended treatment in the acute phase is an immobilization in a functional position, as long as the pain remains. In severe muscle bleeding, especially psoas major, complete bedrest is the rule and hospitalization is required [2, 11]. For a large psoas hematoma with signs of nerve palsy of the femoral nerve, surgery is posed [10-11]. In spontaneous evolution, literature reports the hematoma liquefaction which can be infected secondarily and give abscesses [12-14]. Possibility of pseudo-tumor of the ilium is reported as an evolution of recurrent psoas hematoma in hemophilia [15-16].

**Conclusions**

Hematoma of the psoas muscle may be common in hemophilia. Ultrasound is essential in early diagnosis but more attention may be taken in the pseudo-abscess form. It is useful for follow-up in hemophilia bleeding.

**Additional Information**

**Disclosures**

**Human subjects:** An oral patient consent after explanation was obtained prior to submitting for publication.

**References**

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