

Primary Abscess of the Psoas of the Child: About a Case Observed at the University Hospital Center of Bouake

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Abstract

The primary abscess of the psoas of the child is a rare affection, the pathogenesis of which is still unexplained. The positive diagnosis of this condition is difficult and relies mainly on medical imaging. We report a case of primary psoas abscess in an immunocompetent child, whose diagnosis was facilitated by the provision of abdominal radiography without preparation and abdominal ultrasound. The evolution was favorable thanks to the combination of antibiotic therapy and surgery.

Keywords

Primary Abscess of the Psoas, Child, Ultrasound, Surgery

1. Introduction

Psoas abscess is defined as a purulent collection of the psoas muscle [1]. It is a condition usually secondary to another location, septic or inflammatory, whether retro or intraperitoneal [2]. In rare cases, this condition may be primitive with a misleading clinical diagnosis [1] [2]. The diagnosis of primary abscess of the psoas is then evoked on a bundle of clinical arguments and confirmed by paraclinical explorations. Ultrasound is in our context, a crucial element in the diagnosis of this condition as an alternative to expensive computed tomography. We

report a case of primitive psoas abscess of favorable evolution in an immunocompetent child whose diagnosis was facilitated by the contribution of medical imaging.

2. Observation

The 8-year-old male KLF child, weighing 20 kg, with no specific history, was accompanied by his parents in pediatric consultation for abdominal pain and right trauma avoidance lameness, with a fever developing since ten days. The physical examination reported a flossum and a painful limitation of the flexion-extension of the right hip. Rotations of the right hip were normal. Hospitalization is decided with suspicion of septic arthritis of the right hip. The symptomatology will be marked by the appearance of an impaction of the right iliac fossa, a psoïtis and a fever at 38°C. It was noted an analgesic attitude in flossum of the right hip. Pleuropulmonary examination was normal. The examination of the other apparatuses was without particularities. The paraclinical assessment carried out reported: leukocytosis (17,700 white blood cells) and hemoglobin at 11 g/dl at the hemogram. C-reactive protein (CRP) was 192 mg/l and the sedimentation rate was greater than 150 in the first hour. The tuberculin intradermal reaction was negative, as was the Emmel test. HIV serology was negative and electrophoresis of hemoglobin was normal. The images of the lumbar spine did not show abnormalities of vertebrae and intervertebral discs. The pelvis shots showed normal coxofemoral joints. The image of the abdomen without preparation showed an erasure of the external edge of the right psoas. Abdominal ultrasound showed a hypoechoic mass of the right iliac fossa to evoke an abscess of the right psoas (**Figure 1**). The right kidney was of normal echostructure. An ultrasound-guided percutaneous puncture-drainage puncture was used to extract 50 ml of free pus from the right lumbar region (**Figure 2**). A probabilistic biantibiotherapy parenterally associated oxacillin and gentamicin at doses of 100 mg/kg/day and 3 mg/kg/day, respectively. Bacteriological examination of the collected pus revealed *Staphylococcus aureus* sensitive to oxacillin and gentamicin. The evolution of the patient was favorable with a regression of the clinical signs and normalization of the biological parameters. The abdominal ultrasound performed after the 21st day of treatment showed an absence of residual abscess.

3. Discussion

Primary abscess of the child's psoas is a rare condition [1] [2] [3]. Only about 100 cases have been reported in the literature [4] [5]. The clinical diagnosis of this condition is long and difficult [6], because the clinical signs are not specific. The main symptoms observed are: fever, abdominal pain or hip pain, abdominal mass [6] [7] [8] [9]. On clinical examination there is a contrast between the preservation of internal and external rotations after flexion of the hip [7]. Diagnosis of this condition is confirmed by performing an uncomplicated abdominal wall, ultrasound, or CT scan [5] [6] [8]. The most frequently encountered organism is *Staphylococcus aureus* [4] [6] [7] [8] [9] as was the case in our observation.

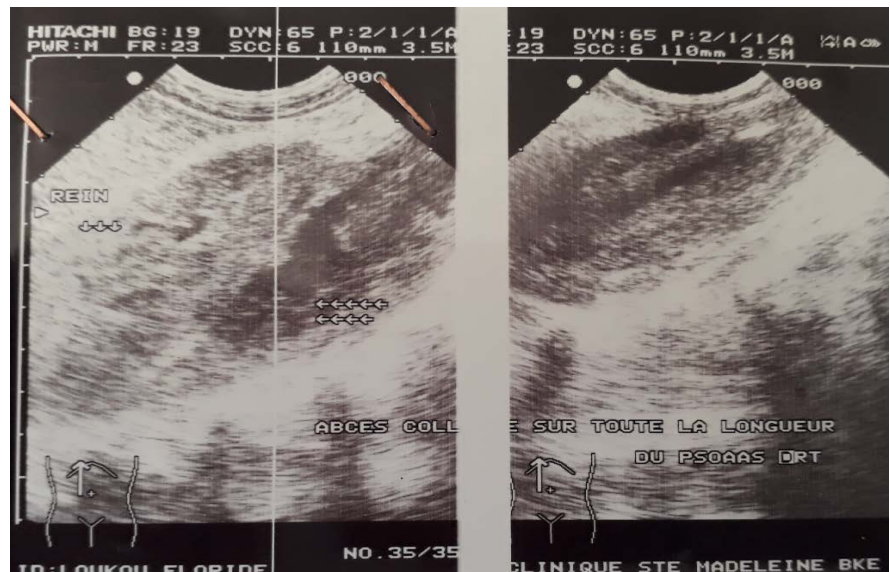


Figure 1. Red arrow (→) indicating a Hypoechoic mass of the right iliac fossa to evoke an abscess of the right psoas.



Figure 2. Puncture-drainage of the abscess of the right psoas.

The pathogenesis of this affection is still obscure [6] [9]. However, several factors are retained to explain the localization of the infection on the muscles, in particular the poor nutritional and hygienic conditions, the infection of a post-traumatic hematoma, the suppuration of a lymphadenitis and the hematological dissemination from an unknown skin center [6] [7] [8]. Treatment of primary abscess is based on anti-staphylococcal antibiotic therapy combined with surgical drainage. Other teams use percutaneous drainage guided by com-

puted tomography (CT) or ultrasound [6] [7] [8] [9]. Treatment may be solely medical based on antibiotic therapy for early diagnosis [6]. The prognosis is generally favorable. Mortality is very low [5]. The functional sequelae are null [7].

4. Conclusion

Primary abscess of the psoas is a rare condition in children. The clinical diagnosis of this condition at the beginning stage is difficult because of the lack of specificity of the clinical signs. It is mentioned in front of a psoitis associated with a pain of the hip. The diagnosis is confirmed by performing an unprepared abdominal wall associated with abdominal ultrasound or CT scan. The treatment combines antibiotic therapy, surgery and interventional radiology.

Declaration of Conflict of Interest

The authors do not declare any conflict of interest.

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