Case Report
Volume 11:10, 2021

Clinical Case Reports

ISSN: 2165-7920 Open Access

Bilateral Iliopsoas Abscess in a Newborn

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Abstract

Iliopsoas abscess is extremely rare in childhood. Early diagnosis and treatment is crucial to reduce mortality and hip damage. Here we present a case report of a 30-day-old newborn boy with bilateral iliopsoas abscess. His family presented him to the neonatal outpatient clinic with complaints of restlessness and swelling in bilateral inguinal regions. A diagnosis of bilateral Iliopsoas abscess was made using ultrasonography and rapid abdominal Magnetic Resonance Imaging (MRI). The treatment was achieved by percutaneous abscess drainage and systemic antibiotic treatment. He recovered completely after treatment.

Keywords: Placenta accreta • Cesarean hysterectomy • Tourniquet • Haemorrhage

Introduction

Iliopsoas muscle abscess is extremely rare in childhood, especially in the neonatal period. The incidence has been reported to be 0.4/100,000 [1]. Bilateral iliopsoas abscess accounts for only 3% of cases [2]. It may be primary and secondary according to the mechanism of formation. Primary iliopsoas abscess is the result of hematogenous spread. *Staphylococcus aureus* is the most common causative organism of primary iliopsoas abscess. Secondary iliopsoas abscess occurs via the spread of vertebral or sacroiliac joint infections. *Staphylococcus aureus*, *Streptococcus pneumoniae* and *Escherichia coli* are the most common causative organisms of secondary iliopsoas abscess [3].

Case Report

A 30-day-old mature baby boy was brought to the children's emergency outpatient clinic of our hospital with complaints of restlessness and swelling over the inguinal regions. His family stated that he was born by normal vaginal route, had a difficult delivery and was treated in the intensive care unit due to amniotic fluid aspiration for one week, postnatally. In physical examination, swelling of the inguinal regions and limited range of motion in the hip joint are noticed. His temperature was 37.8°C. Laboratory findings were as follows; WBC 22.5 (103 µL), CRP 82.98, HGB 9.6 (g/dL), PLt 67.3 (103 µL), ESR 28 mm/hour. The baby was taken to ultrasonographic examination with a suspicion of intraabdominal mass. On abdominal Ultrasonography (US), bilateral iliopsoas muscles were enlarged with heterogeneous hypoechoic fluid collections. Then, rapid abdominal MRI examination performed. On MRI, bilateral psoas muscles were enlarged with fluid collections seen hypo intense on T1 weighted images, hyper intense on T2 weighted images. After intravenous contrast injection peripheral enhancement was observed in fluid collections compatible with abscesses (Figure 1). Ultrasonography guided percutaneous abscess drainage was performed bilaterally. In microbiological analysis, *Staphylococcus Aureus* is identified. Then, systemic antibiotics were administered for 3 weeks. On control US after treatment, it was seen that iliopsoas abscess were completely regressed.

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Received 15 September 2021; **Accepted** 29 September 2021; **Published** 06 October 2021

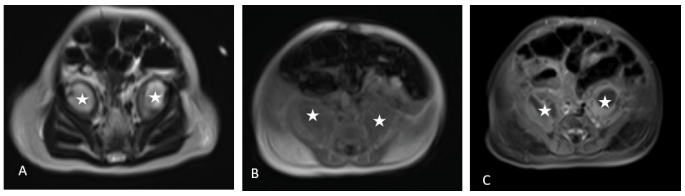

Figure 1. Abscess formation (arrow), which in T2A images (A) hyperintense, T1A images (B) hypointense and postcontrast images and (C) showed peripheral contrast involvement, which caused expansion of the bilateral psoas muscle in axial MRI sections.

Discussion

Bilateral primary iliopsoas abscess is exceedingly rare in childhood [1]. In the neonatal period, the most important symptoms are swelling of inguinal regions, thighs and limitation of movement in the hip joints. Fever, leukocytosis, and high sedimentation rate are almost always observed laboratory findings. Septic arthritis of the hip is the most important pathology that should be considered in differential diagnosis [4]. No pathology was found in the hip joint our patient. US are the first-choice imaging method in diagnosis with ease of use and accessibility. Although retroperitoneal collections can usually be detected with US, MRI and Computerized Tomography (CT) is used to better determine the localization and spread of lesions [4]. MRI examination is superior to CT because of no ionizing radiation exposure and better soft tissue visualization. However, conventional abdominal MRI examination has some limitations in childhood due to its long imaging time. Fast MRI using rapid imaging techniques with shorter examination time and generally not requiring sedation may eliminate the limitations of conventional MRI [4,5]. In the current case, after detecting the fluid collections in bilateral iliopsoas muscles on US examination, we performed fast abdominal MRI to better determine the location and spread of the collections. Treatment options consist of percutaneous drainage or open surgery. Open surgical drainage has been found to be more effective than exploration and complete evacuation of the abscess [6]. Percutaneous drainage is an effective method of treatment for the management of psoas abscesses and an effective alternative to open surgical drainage. Percutaneous drainage is a less invasive but equally effective alternative to surgery in paediatric patients [7]. In our case, the patient completely recovered with US-guided bilateral percutaneous abscess drainage supported with parenteral antibiotic treatment.

Conclusion

In conclusion, iliopsoas abscess should be kept in mind in differential diagnosis of patients presenting with limited range of motion in the hip joint and swelling in the inguinal region. The first diagnostic imaging method should be US. Fast abdominal MRI may be preferred to better evaluate the location and spread of the disease.

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How to cite this article: Gumus, Hakan. "Bilateral Iliopsoas Abscess in a Newborn." Clin Case Rep 11 (2021): 1469.