

## A rare case report of neonatal iliopsoas abscess presenting as swelling of left hip

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### Abstract

We report the case of a 12 days old baby boy who presented with swelling and bluish discoloration on his left hip at Pakistan Institute of Medical Sciences in November 2018. Ultrasound (USS) was useful in making the diagnosis of a neonatal psoas abscess. He was treated with extraperitoneal drainage and with systemic antibiotics. The clinical presentation and diagnosis, treatment of this rare condition and brief literature review is given in this case report.

**Keywords:** Abscess, Iliopsoas, Neonate, Staphylococcus aureus, Extraperitoneal Drainage

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### Introduction

Primary iliopsoas abscess is uncommon in children and extremely rare in neonates.<sup>1</sup> Iliopsoas abscess (IPA) can be divided into primary or secondary. Primary IPA has no identifiable cause and is common in young children.<sup>1</sup> The most common cause of primary IPA is Staphylococcus aureus, most likely due to skin infection leading to bacteraemia, most common in developing tropical countries. Secondary IPA occurs as a result of extension from the gut, appendix, urological and usually enteric bacteria i.e. E coli and Streptococcus are involved. Secondary IPA is more common in developed countries.<sup>2</sup> Although IPA is seen frequently in children, occurrence in neonates is extremely rare. We report a case of Primary IPA managed at the Pakistan Institute of Medical Sciences, Islamabad.

### Case Report

A full term baby boy weighing 2.3 kg was born via emergency lower segment caesarean section due to breech presentation. The mother was a non booked case and had no antenatal visit at Pakistan Institute of Medical Sciences. She had no antenatal risk factors and belonged to a low socioeconomic class living in a mud house. Baby was on mother's milk as well as on formula feed. The baby developed bluish discoloration and swelling on the left hip

region on the 10th day of life. The swelling increased progressively and the mother observed that the baby cried a lot during diaper changing and positional changes. He had intermittent fever since the last three days and also refused feeds. The infant was vaccinated at birth but there was no history of any intramuscular injection over the affected thigh. There was no history of any trauma. The baby was febrile and appeared unwell, but was active and alert with normal neonatal reflexes. On local examination the left hip was swollen and warm and tender to touch with limitation of movements. Rest of the systemic examination was normal.

The baby had haemoglobin 12 g/dl (12-20 g/dl), WBC count 32000/cmm (5000-21000/cmm) and platelet count 650000/cmm (150000-450000/cmm). Arterial blood gases showed no acidosis. X-ray of legs revealed soft tissue swelling of the left hip joint shown in figure 1. Ultrasound scan showed thickening of skin and subcutaneous tissue representing subcutaneous oedema /cellulitis. Antibiotics were started and bone scan was advised. Bone scan report showed the finding of soft tissue pathology involving the left hip.

Surgical consultation was taken and an impression of cellulitis was made. It was advised to manage conservatively. But the baby did not show any signs of improvement, the swelling began to increase along with overlying redness. Repeat labs showed WBC of 42000/cmm (5000-21000/cmm), haemoglobin 10.3g/dl (12-20g/dl), platelets 825000/cmm (150000-450000/cmm), CRP 78 mg/dl (5-15 mg/dl). Blood culture showed the growth of pseudomonas aeruginosa and sensitivity to Pipracillin, Tazobactam and vancomycin. Ultrasound of the left hip joint was repeated and it revealed hypoechoic area with thick internal echoes measuring 14 ml in volume involving lower psoas, iliacus and entire left glutei with skin thickening suggestive of an abscess. CT was done which showed loculated collection formation measuring approximately 5x5 cm in left iliac fossa extending along left inguinal region as well as left thigh. Incision and extraperitoneal drainage was done and 14 cc of pus was removed which was sent for culture and sensitivity and drain was placed in situ. Baby remained stable after the procedure, swelling of left thigh reduced as shown in figure 2 and there was no output in the drain so it was removed. Pus culture showed growth of Methicillin

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**Figure-1:** X-ray show swelling of soft tissue of left thigh.



**Figure-2:** Swelling left thigh resolving after incision and drainage.

resistant staphylococcus aureus sensitive to Linezolid which was started and the baby showed dramatic improvement. The feed improved and the patient was discharged home on day 16th of admission.

Baby was seen one week after discharge. The swelling had resolved completely and there was no pain.

### Discussion

Iliopsoas abscess (IPA) is a purulent retroperitoneal collection involving the iliopsoas muscle. It was first described by Mynter<sup>3</sup> in 1881 as “psoitis” and remains a

rarely reported condition. In neonates, only 20 cases have been reported to date in English literature.<sup>1-4</sup>

IPA may present as a tender palpable mass in the iliac fossa, pelvis, lower abdomen or inguinal region. The clinical presentation is seen as a triad of pain, swelling and limitation of movement. Refusal to feed is also very common in these neonates.

High resolution ultrasound scan or CT (computerized tomography) is required to confirm the diagnosis of IPA. Management consists of systemic intravenous antibiotics and surgical drainage which is superior to antibiotic alone to speed up recovery. Recently laparoscopic drainage has been found to be successful.<sup>5</sup> Our report describes a case that was diagnosed early and treated promptly and was discharged in a stable condition.

### Conclusion

Any baby presenting with fever and refusal to move limb should be investigated thoroughly with possibility of IPA in mind, as early diagnosis and prompt treatment can prevent morbidity and mortality.

**Disclaimer:** Informed written consent was taken from the baby's parents for publishing the case report along with illustrations.

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