CASE STUDY

A Late Diagnosis of Inguinal Abscess in a 32 -day- old boy Nonresponding to I/V Antibiotics, Needed Surgical Drainage – a Case Report

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Abstract :

Inguinal swelling is a common problem in paediatric population, mostly in neonate and infants. The common causes are congenital inguinal hernia, incarcerated hernia, lymphadenitis, mal descended testis etc. Our case, a 32-day- old male baby presented with swelling of left inguinal region for 1 day and excessive crying with flexed left leg for 7 days. On imaging study, it was diagnosed as left inguinal lymphadenitis, following a course of antibiotics required surgical drainage. Primary inguinal lymphadenopathy in paediatric age is not uncommon. Timely surgical intervention is required when abscess developed.

Keywords: inguinal swelling, infants, surgical drainage

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Introduction:

Inguinal swelling is a common problem in paediatric population, mostly in neonate and infants. Inguinal hernias and femoral hernia, spermatic cord hydrocele, inguinal lymphadenitis are common findings in infancy.[1] The reported incidence of inguinal hernia, most commonly congenital inguinal hernia, is 5–50/1000 with a male-to-female ratio of 5:1. Most inguinal hernias are unilateral, and more common in premature infants. [2,3] Other causes of inguinoscrotal swelling include testicular torsion, undescended testis, retractile testis, epididymo-orchitis, inguinal lymphadenitis, paratesticular tumors and tumors of the inguinal region such as lipoma and liposarcoma. Although paratesticular tumors are uncommon, they also could be considered in differential diagnosis. [4,5]

Most of the time only the clinical examination is sufficient to obtain a diagnosis, but in inconclusive cases, ultrasonography (USG) can play an important role. Here, we are reporting a case with left sided inguinal swelling which was diagnosed as a case of left sided inguinal lymphadenitis and not responded to intravenous antibiotics alone, required surgical drainage for cure.

Case presentation:

A 32- day- old male baby presented with a swelling over his left groin noticed for one day. On query, mother also mentioned that the baby cried excessively while bathing or on touching for last seven days. The baby was delivered normally at term with birth weight of 3 kg, at a medical collage hospital and birth weight was 3 kg. He cried just after birth and without any post-natal complication. The baby was on exclusive breastfeeding and they were discharged three days following delivery. His mother was 29 years old with the second issue, maintained regular antenatal

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checkup. Just before delivery she was found anemic with neutrophilic leukocytosis. The baby was well alert, crying excessively. The BCG mark was imperceptible. A swelling was noted on left inguinal region, approximately 3.5cm X 2 cm, firm in consistency, non-reducible and tender, overlying skin was red and tethered. Left hip movement was restricted and passive movement was painful too. Genitalia was normal and bilateral testes were palpable in the scrotum. He was mildly anaemic but no fever. Haematological parameters revealed – low haemoglobin (9.7 gm/dl), low Haematocrit (28.8%) and other cell counts were normal. C reactive protein (3.0) and other investigations were found to be normal (Table 1).

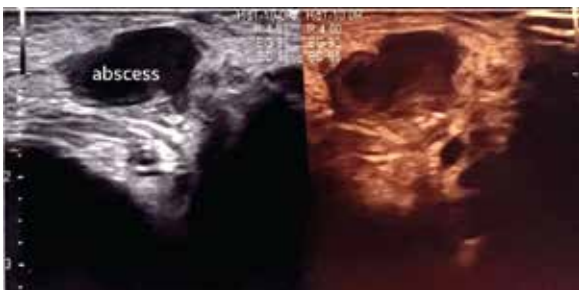
Table 1: investigations of patient

CBC	
Haemoglobin	9.7 g/dl (11 -17g/dl)
Haematocrit	28.8 %
ESR	36 mm in 1st hour
Total count of WBC	8080 /cmm
Neutrophils	25%
Lymphocytes	68%
Total Platelet count	213000
C – Reactive Protein (CRP)	3.0
VDRL	Non-reactive
HBsAg (ICT)	Negative
USG of left ingunal swelling	Left inguinal Lymphadenitis
FNAC	Suppurative infection AFB – absent
Pus Culture	Growth of Staphylococcus aureus

USG revealed left inguinal lymphadenitis. We started Intravenous antibiotics, inj. Cefotaxime and inj. Amikacin with other supportive management. On day 2 of hospital admission, the baby was found irritable but redness over the swelling was reduced and left leg movement was improved. FNAC was done on next day and found suppurative inflammation and TB excluded. Final diagnosis was Inguinal Lymphadenitis with abscess. Antibiotics were continued for seven days but swelling was not improved. Surgical opinion was made and decided to do drain. After drainage, oral antibiotics was continued and the baby was discharged after 3 days with oral antibiotics. Follow up was done after 5 days. Wound healed properly and the baby became healthy, left leg movement became normal and he gradually gaining weight.

Before surgical drainage

After surgical drainage



Discussion:

The main reason of reporting this case is to highlight the failure of medical treatment and evaluation of surgical timing. Most common cause of inguinal swelling is hernia and commonly found unilateral. Other causes of inguinal swelling are incarcerated inguinal hernia, undescended testis, retractile testis, epididymo-orchitis, inguinal lymphadenitis, paratesticular tumors and tumors of the inguinal region such as lipoma and liposarcoma etc. [4,5] The inguinal lymph node can be subdivided into the superficial and deep lymph nodes. The superficial lymph nodes drain the anal canal (below the pectinate line), the skin below the umbilicus, lower extremity, scrotum, vulva. The deep nodes receive drainage from the glans penis or clitoris, as well as the superficial lymph nodes. The superficial and deep inguinal lymph nodes both drain into the external iliac lymph nodes. The lymph node's primary function is to filter for harmful substances as lymphatic fluids travel through its cortex, paracortex, and medulla.[6,7] Lymphadenopathy is body's short-term response to local or systemic inflammatory changes. It is a common clinical presentation, most commonly caused by infection, autoimmune diseases and tumors. [8] Lymphadenopathy usually indicate infection from bacteria or viruses. Swollen inguinal lymph nodes could indicate an infection of areas of the lower body and concerning causes of inguinal lymphadenopathy are sexually transmitted infections and metastatic tumor. Sexually transmitted infections that commonly presents with inguinal lymphadenopathy are lymphogranuloma venereum, secondary syphilis, and chancroid caused by Chlamydia trachomatis, Treponema pallidum, and Haemophilus ducreyi, respectively. [6]. Hemolytic streptococcus and Staphylococcus aureus account for 40–80% of the cases of acute infection-related lymphadenopathy. [9] Inguinal lymphadenitis in children were reported among 1 year to 3 years, toddler age group. Few studies showed lymphadenitis in infants after 6 weeks of age. [10,11] Diagnosis was confirmed by the help of USG and tuberculosis was excluded by FNAC 1. In our case, surgical drainage was done and culture of pus revealed high colony count of staphylococcus aureus despite of preoperative antibiotics. Growth of staphylococcus aureus and Streptococcus found in many other studies. [10,11] Organism also could be involved such as Staphylococcus hominis, Group B streptococcus, Streptococcus pneumoniae and Escherichia coli . [11,12] Inguinal lymphadenitis can be primary which is idiopathic or has no detectable source and secondary in which the source of infection is direct spread from adjacent structures. Majority of cases in the infantile period is primary. [12] We This case concluded as idiopathic and primary lymphadenitis

Conclusion

This case of inguinal swelling should be a message for health practitioners for awareness. Primary inguinal lymphadenopathy in paediatric age is not uncommon. Proper antibiotic treatment is sufficient but may not respond in abscess. Prompt surgical decision is indispensable for management as well as evaluation of C/S and histopathology essential.

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