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Meconium Cyct in Preterm Baby

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Case Report

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Abstract

Meconium cyst in pre-term baby is rare. Meconium pseudo cyst is a complication of meconium peritonitis which is a sterile chemical peritonitis due to intrauterine bowel perforation. When the perforation in the intestine does not heal and communication with the cyst persist postnatal that can lead to cyst expansion, infection of the cyst or rupture of pseudo cyst. This is a case report of a neonate with rupture of meconium pseudo cyst causing perforation peritonitis [1].

Our case is preterm 32 weeks part of twins, cesarean section presented with huge abdominal distention diagnosed prenatal as meconium cyst.

Introduction

Meconium cyst perforation is serious complication especially when was happened in preterm baby, and time of perforation. It leads to chemical peritonitis which is fetal disease.
Meconium cyst can be diagnosed antenatal by us abdomen and managed very well postnatal any delay in diagnosis and management lead to serious complication like peritonitis.

Incidence

The incidence is 1 in 30,000 live births

Etiology

The proposed etiology for perforation:

1. ischemia of the intestine
2. mechanical obstruction like atresia,
3. Volvulus, extrinsic congenital bands,
4. Meconium ileus, internal hernias,
5. intussusceptions, Meckel's diverticulum,
6. Hirschsprungs disease

Our case

32Weeks product of LSCS twin with Apgar score6, 8, 9, 1st twin was distressed put on CPAP and load by caffeine.

2nd twins had severe abdominal distension, severe distress, immediately intubate in delivery room and shifted to NICU, put on MV but she was not maintaining saturation, shift to HVOV and called immediately pediatric surgery after x-ray

Investigation

CBC showed leukocytosis
Blood gas shows severe respiratory acidosis
X-ray chest and abdomen: small lung volume and huge mass with small calcification
US Abdomen: huge and massive cyst. Fluid turbid in in the intestinal cavity

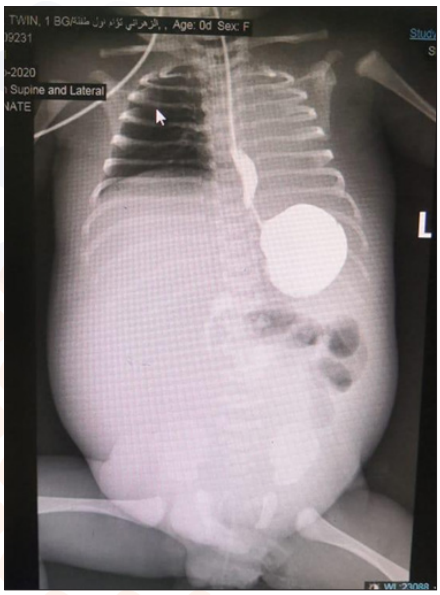


Figure 1: Gastrographene dye was done after removed of meconium cyst

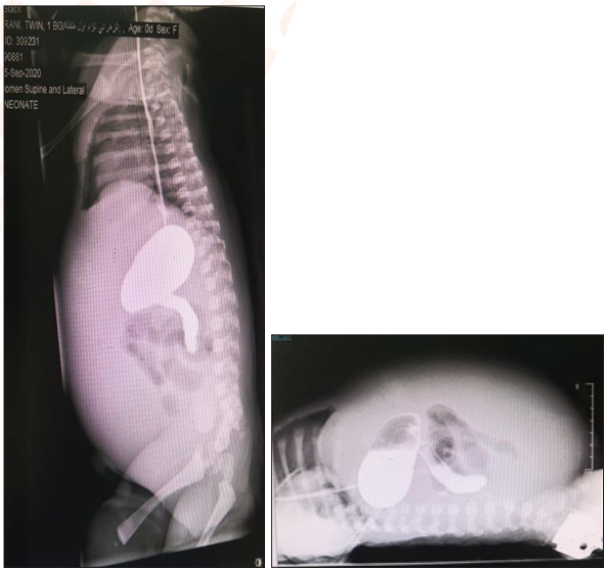
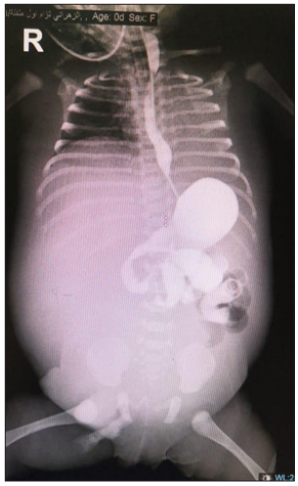
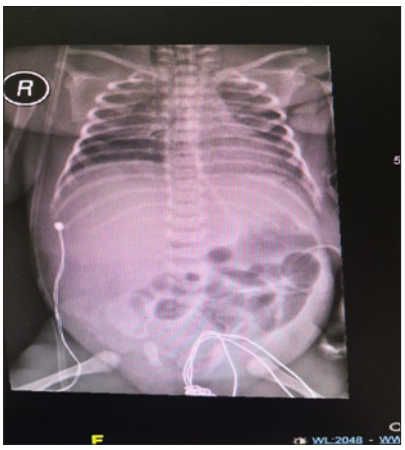


Figure 2: gastrographine dye reached to duodenum



Gastrographene dye showed small intestine



Post-operative PA Chest x-ray showed normal intestinal after removed meconium cyst

Differential Diagnosis:

1. RDS
2. Respiratory Failure
3. Rupture Meconium cyst with chemical peritonitis
4. Intestinal tumor

Course and Management

Baby admitted immediately to NICU as case of respiratory distress and abdominal distension, pediatric surgery involved and asked for gastrographene dye was given and aspiration of the cyst under US guideline, aspiration showed meconium and pediatric surgery asked to prepared immediately for operation.

They found huge rupture meconium cyst and inflamed of peritoneal cavity

Post-operative vital signs were stable Temperature 37c, HR=140ppm, RR=assist ventilator Bp =Maintain

Baby covered by ampicillin and gentamycin and metronidazole and fentanyl and paracetamol for pain TPN 100ml/kg/day and blood gas and RBS monitoring.

Baby kept NPO for 10 days until stoma was working then started OGT breast milk protocol
Baby tolerated feeding but he had output drain from high stoma, he developed dehydration, so we increased fluid to 250ml/kg/day, and we gave him small amount of breast milk through OGT and the TPN

Baby was doing well extubated to Nasal cannula and increased milk gradually and he tolerated

Discussion

Meconium is rare too appeared in preterm baby and when it appeared it associated by intrapartum problem.

Our case is preterm 32 weeks 2nd twin, weight 1.8 kg .1st twin 2.2 kg discharge with mother

No maternal illness, mother is young 25 years para 2 , 1st baby

completely healthy .no consequently, no chronic illness in the family

Cystic fibrosis test was rolled out

Meconium cyst perforation is serious problem leads to chemical peritonitis and serious problem

Meconium cyst diagnosed antenatal by ultrasound and informed NICU for further management

Meconium cyst perforation if not taken immediately to surgery baby will suffered a lot like malabsorption, and screening for cystic fibrosis must be done in each case

Author's conflict

No conflict

Reference

1. Saleh N, Geipel A, Gembruch U, et al. (2009) Prenatal diagnosis and postnatal management of meconium peritonitis. *J Perinat Med 37*(5): 535–538.