

Meconium Peritonitis - A Consideration in Intra Abdominal Calcification

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Abstract: Meconium peritonitis is an aseptic chemical peritonitis which results from the perforation of the bowel in utero. Incidence 1: 35000 Live births. Possible causes-mesenteric ischaemia, volvulus, intestinal atresia, meconium plugs, intestinal hernias and Hirschsprung disease, cystic fibrosis. Perforation of intestine in utero leads to leakage of meconium into peritoneal cavity causes inflammatory reaction and chemical peritonitis subsequently seals with intraabdominal calcifications. PRENATAL USG is diagnostic.

Keywords: Meconium Peritonitis, Intraabdominal calcification, Prenatal usg, Cystic Fibrosis, Laparotomy

1. Case Brief

A 17 hrs old FNB born to primi mother with Polyhydramnios and uneventful perinatal history, cried immediately after birth was presented to emergency with respiratory distress. On Examination, Baby alert, weighed 2.7 Kgs and was tachypneic (Downe's score-2) with abdomen distended and had bilious aspirate. ANTENATAL USG showed Moderate Echogenic fetal ascites-? BOWEL PERFORATION? MECONIUM PERITONITIS. Baby was kept on O₂, IVF and antibiotics. Xray abdomen taken showed distended bowel loops with calcifications over liver and splenic areas. Usg abdomen showed prominent large small bowel loops with internal echoes in the peritoneal cavity features suggesting of BOWEL PERFORATION. After basic investigations, baby was taken up for surgery-under GA Exploratory laparotomy done with adhesiolysis with double loop ileostomy done.

Intraop findings were fecal matter with diffuse adhesions in between bowels and parietal peritoneum. Dilated congested and perforated proximal bowel and collapsed distal bowel and ILEAL ATRESIA at 30 cms from IC JUNCTION



Figure 1: This XRAY shows calcifications over the liver and splenic areas.

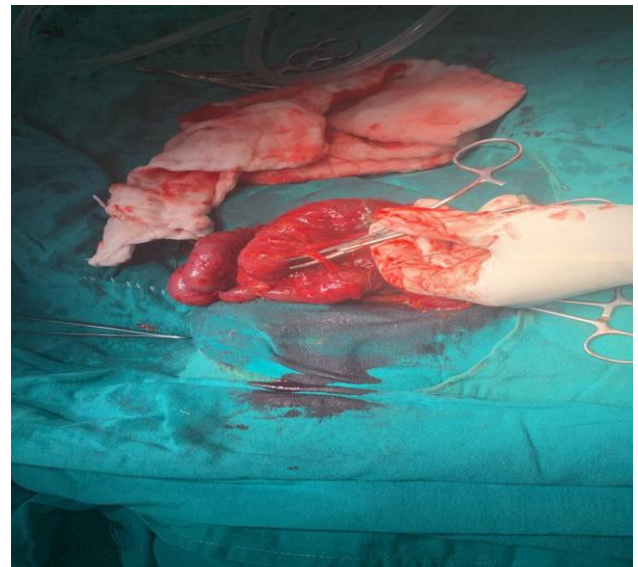


Figure 2: INTRAOP FINDINGS of Distended Proximal Bowel Loops



Figure 3: Postoperative care of the baby on Mechanical Ventilation

2. Discussion

Meconium peritonitis clinical manifestations are variable and may be asymptomatic or in majority of cases nonspecific. Common manifestations are abdominal distension, ascites, respiratory distress, polyhydramnios, bilious vomiting, intraabdominal calcifications, inguinal hernia, abdominal mass.

As per antenatal USG findings meconium peritonitis classified into 3 groups.

Type 1-large meconium ascites

Type 2-large pseudocyst.

Type3-intra abdominal calcifications, small meconium ascites and /or shrinking pseudocyst.

The treatment should be initiated in first 24 hrs of life and may be performed through surgery or conservative therapy with antibiotic alone or associated with abdominal drainage usually the latter. Intrauterine approach is often not used because it leads to worse prognosis.

Other DDs include: Liver calcification with congenital infections, Adrenal calcifications, Mesenteric nodes, Hepatic granulomas.

3. Conclusion

This pathology is a rare condition with many complications and low survival but outcomes have improved over time with better antenatal diagnosis and timely surgery, which led to the reduction in morbidity and mortality due to this pathology. Meconium peritonitis should always be suspected in neonates when USG and xrays present suspicious findings like calcifications and abdominal pseudocyst and all these babies should be screened for cystic fibrosis, as it is frequently associated with this condition.

References

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