NEONATAL INTUSSUCEPTION SECONDARY TO MECKELS DIVERTICULUM: A RARE AND OFTEN MISDIAGNOSED CLINICAL ENTITY

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INTRODUCTION

Intussusception in the premature neonate is extremely rare[1]. Clinical features are unspecific and overlap those of NEC which is a much more common disorder in this age group[2].Majority of the reported cases of intussusception were diagnosed intraoperatively[1]. We are presenting a case of premature intussusception secondary to Meckel's diverticulum with bowel perforation. The preoperative diagnosis in this case was challenging because of the rarity of this case.

CASE PRESENTATION

A 1.5kg male baby premature at 35 weeks with maternal history of pregnancy induced hypertension and gestational diabetes. Antenatal scan showed IUGR with oligohydramnios. He was born vigorous with good APGAR score and initially admitted for low birth weight. Feeding was established and awaiting for weight gain. At 4 weeks of corrected age, he presented with abdominal distension and per-rectal bleeding. Nasogastric tube aspirated 17 cc brownish content. The child was active, per abdomen full but soft and no mass palpable. His septic parameters were unremarkable and abdominal X-ray showed generalised bowel dilatation and initially treated for necrotising enterocolitis. He was treated conservatively started on intravenous cefotaxime and metronidazole. The baby clinically not improving. He was still passing out melenic stool requiring packed cell transfusion and had worsening abdominal distension. Serial abdominal x-ray done showed dilated bowel with no clear evidence of pneumoperitoneum or pneumatosis intestinalis. NG tube aspirate was then bilious. Lower contrast study demonstrated normal result. Decided for exploratory laparotomy suspecting an intestinal obstruction. Intraoperatively, the patient was found to have ileo-ileal intussusception secondary to meckel's diverticulum and presence of small bowel perforation proximal to it. Small bowel resection and primary anastomoses done. Postoperative recovery was uneventful. Histopathology examination showed the mucosal surface of invaginated intestine is ulcerated which might be the possible cause for PR bleeding in this case. No heterotopic element is visualised. Upon follow up the patient was feeding and thriving well.

DISCUSSION

Intussusception commonly occur at 5 to 9 months of age where 80% are ileocolic intussusceptions with an anatomic lead point in 2-12%[4] The small bowel intussusceptions are found in <10% cases among all age groups. In premature neonates, the involvement of small bowel is very common in ileum and jejunum (91.6%). The presence of recognizable causes of intussusception in preterms, such as Meckels diverticulum, bowel polypus, etc. was infrequent. Intussusception is an extremely rare disorder in preterm infants hence it is often misdiagnosed as necrotizing enterocolitis.[1-3] Delay in diagnosing intussusception in preterm infants reported with mean of 10 to 19 days[3].This leads to high number of patients with perforation and the necrosis of the intussuscepted segment. Neonatal intussusception does not have any classical radiological signs. The most common imaging findings in preterms with intussusception are signs of ileus such as dilation of bowel loops[1] and occasionally gas-fluid levels[3]. There are reported studies regarding role of ultrasound in early diagnosing of intussusception in neonates[4]. On the other hand, contrast enema does not help in reaching a diagnosis as most preterm neonatal intussusception involve small bowels[1-3].

CONCLUSION

Intussusception in the premature neonate often misdiagnosed as NEC, and further delaying operative intervention. Early diagnosis may be achieved by abdominal ultrasound. Premature neonatal Intussuception can be treated successfully by bowel resection and primary anastomosis with great outcome.

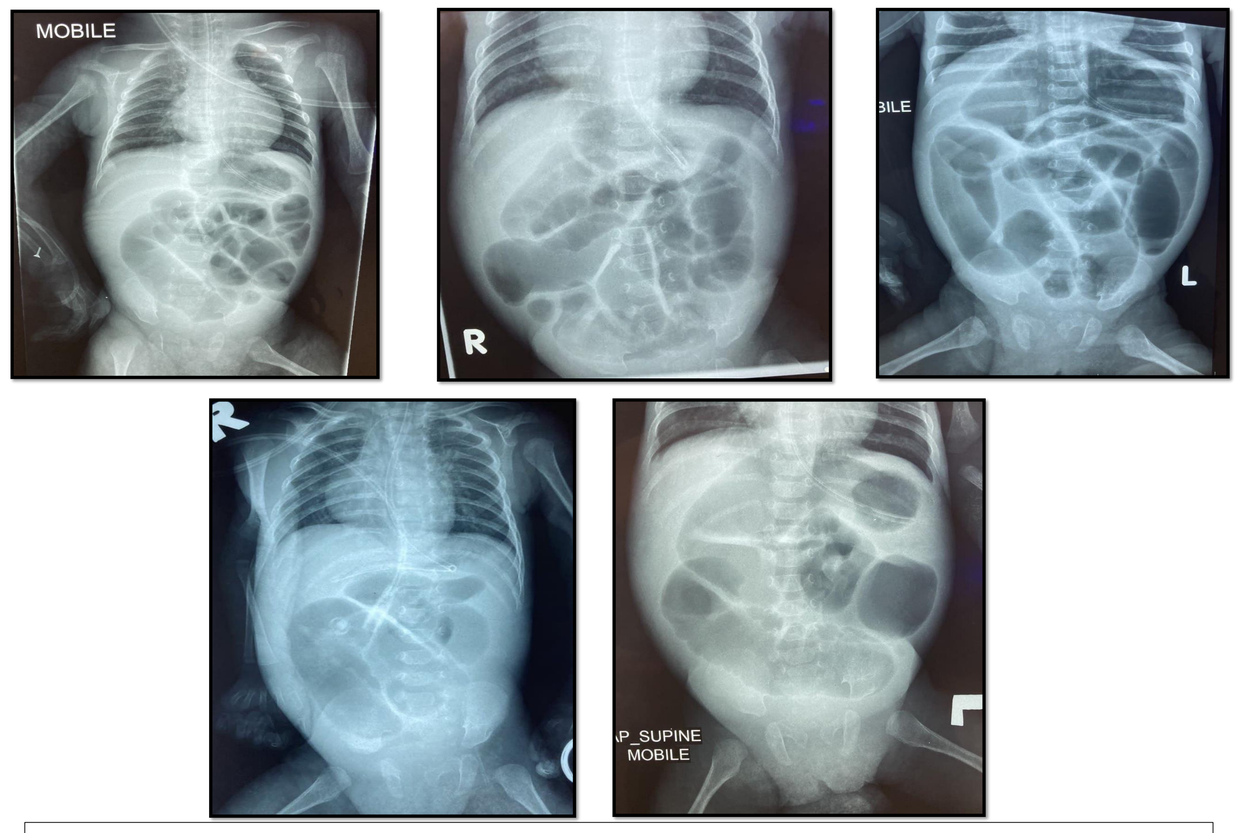

Figure 1. Serial abdominal xray showed dilated bowel

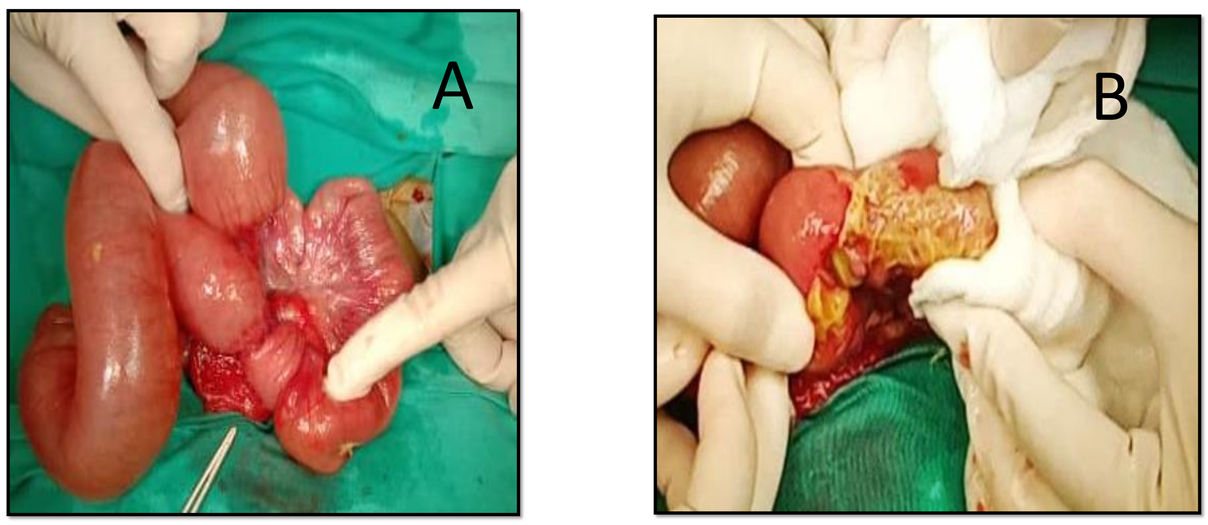

Figure 3. Ileo-ileal Intussuception (A) and small bowel perforation (B)

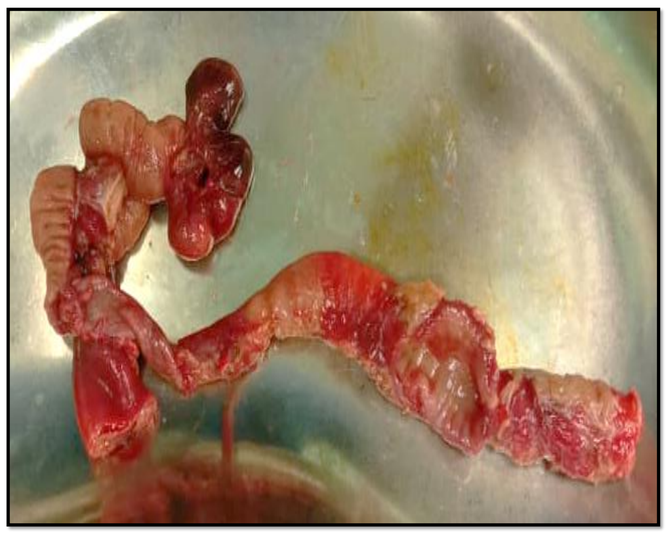

Figure 4. Resected specimen showing invagination of meckels diverticulum into small bowel.

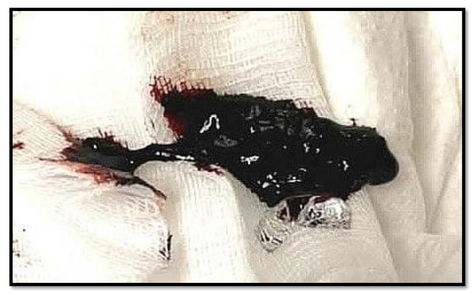

Figure 2. Malenic stool

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