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Neonatal Intestinal Obstruction Due to Meckel's Diverticulum in a Case with Antenatal Polyhydramnios: A Rare Presentation

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Abstract

We report a rare case of neonatal intestinal obstruction caused by Meckel's diverticulum in aterm neonate with antenatal polyhydramnios. The baby passed meconium during the first two days of life but later developed abdominal distension and failure to pass stools. Exploratory laparotomy revealed a Meckel's diverticulum causing distal ileal obstruction. Surgical excision with primary anastomosis led to complete recovery. This case highlights the importance of considering Meckel's diverticulum as a rare but significant cause of late-onset neonatal intestinal obstruction, especially in association with antenatal.

Keywords: Meckel's diverticulum, Neonatal intestinal obstruction, Polyhydramnios, Congenital anomaly.

Introduction

Meckel's diverticulum is the most common congenital anomaly of the gastrointestinal tract, resulting from incomplete obliteration of the vitelline duct. Though usually asymptomatic, it can rarely cause intestinal obstruction in neonates. Antenatal polyhydramnios is often associated with fetal gastrointestinal obstruction but seldom linked to Meckel's diverticulum. This report describes a neonate who initially passed meconium normally but later developed signs of intestinal obstruction due to a fibrotic band from Meckel's diverticulum.

Case Presentation

A full-term male neonate, birth weight 3.01kg, was delivered by cesarean section. Antenatal ultrasonography revealed polyhydramnios, but no other congenital anomaly. The neonate passed meconium within the first 24 hours and continued to pass small amounts for the first two days. On day 3 of life, the baby developed progressive abdominal distension, poor feeding, and failure to pass stools and bilious vomiting .On examination, the abdomen was distended .X-ray abdomen (erect) showed multiple dilated bowel loops with air-fluid levels suggestive of distal small bowel obstruction. Blood investigations were within normal limits. The neonate was stabilized with IV fluids, nasogastric decompression, and antibiotics. Exploratory laparotomy was performed through a right transverse supra-umbilical incision. intraoperatively, a Meckel's diverticulum was identified approximately 35 cm proximal to the ileocecal junction, The diverticulum and fibrous band were excised, followed by end-to-end ileoileal anastomosis.

Discussion

Meckel's diverticulum Occurs in 2% of the population

Found 2 feet (60 cm) from the ileocecal valve

Usually 2 inches long

Contains 2 types of ectopic mucosa (gastric and pancreatic most common)

Occurs 2 times more in males

Usually presents before 2 years of age but neonatal manifestations are extremely rare. Intestinal obstruction may result from volvulus, intussusception,

Littre's hernia, or a fibrous vitelline band, as seen in this case. The unique

feature here is that the neonate passed meconium normally during the first two days, indicating initial intestinal patency, and later developed obstruction—suggesting a Mechanical, acquired obstruction rather than congenital atresia. Antenatal polyhydramnios often reflects impaired fetal swallowing and may hint at gastrointestinal obstruction, Polyhydramnios (also called hydramnios) is an excess accumulation of amniotic fluid during pregnancy. even when initial postnatal tindings are deceptively normal. Early surgical exploration remains crucial in differentiating and treating such cases.

Conclusion

This case emphasizes that Meckel's diverticulum, though rare in neonates, should be considered a possible cause of late-onset intestinal obstruction, even in neonates who initially pass meconium. The association with antenatal Polyhydramnios further underscores the need for careful prenatal and postnatal evaluation. Early recognition and Prompt surgical management ensure excellent outcomes.

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