European Journal of Clinical Pharmacy
Print ISSN: 2385-409X **Online ISSN**: 3105-0409
Website: https://farmclin.com/

Case Report

Idiopathic Ileocolic Intussusception in a Full-Term Neonate: A Rare Case Report

Article History:

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Received: 21-12-2025
Revised: 28-12-2025
Accepted: 28-12-2025
Published: 30-12-2025

Abstract: ***Background***: Intussusception is a frequent cause of intestinal obstruction in infants, but it is exceedingly rare in neonates, particularly without an identifiable pathological lead point. Diagnosis in this age group is often delayed due to atypical and non-specific symptoms such as abdominal distension and vomiting, leading to increased risk of complications. Early recognition and management are critical for improving outcomes. ***Case Presentation:*** We report the case of a 25-day old full term male neonate who presented with bilious vomiting, progressive abdominal distension, and absence of bowel movements in a short span of 12 hours. Physical examination revealed a distended and tender abdomen. A nasogastric tube drained bilious material. Abdominal ultrasonography demonstrated characteristic features of intussusception. The patient underwent emergency exploratory laparotomy, which confirmed ileocolic intussusception with ischemic bowel. No pathological lead point was identified. Resection of the affected segment followed by primary end-to-end ileocolic anastomosis was performed. The patient was started on feeds and gradually increased, recovered well, and was discharged in stable condition. 1 year follow up was done, baby is taking feeds well. Repeat abdominal ultrasonography shows no suspicion of the lesion in the abdomen. Baby is taking breastfeeding well and has adequate weight gain. ***Conclusions***: Idiopathic ileocolic intussusception in full-term neonates is extremely rare. A high index of suspicion is essential in neonates presenting with signs of bowel obstruction. Intussusception is associated with more severe complications in neonates compared to infants. Early imaging, especially ultrasonography, and prompt surgical intervention are critical for favourable clinical outcomes.

Keywords: Neonate; Intussusception; Ileocolic; Idiopathic; intestinal obstruction, case report.

INTRODUCTION

Intussusception is one of the most common causes of intestinal obstruction in infants and young children, typically occurring between 6 and 18 months of age. In contrast, neonatal intussusception is a rare clinical entity, representing only 0.3% of all cases of intussusception and approximately 3% of neonatal intestinal obstructions.[1] Most neonatal cases are associated with identifiable organic lead points, such as Meckel's diverticulum, intestinal duplication cysts, or tumors.[2,3] The clinical presentation in neonates is often nonspecific, with signs such as abdominal distension, vomiting, and delayed passage of stool, which can be confused with other more common neonatal conditions such as ileus.[4,5]

Due to its rarity and atypical presentation, neonatal intussusception poses a diagnostic challenge. Early

diagnosis is critical to prevent bowel necrosis and associated morbidity. Imaging, particularly abdominal ultrasonography, plays a pivotal role in diagnosis. We report a rare case of idiopathic ileocolic intussusception in a full-term neonate, successfully managed by surgical intervention. This case adds to the limited literature on neonatal idiopathic intussusception and highlights the importance of clinical suspicion and early imaging.

CASE PRESENTATION

A 25-day-old male neonate, born full-term at 40 weeks and 2 days of gestation via normal vaginal delivery with a birth weight of 3100 g, presented with bilious vomiting, progressive abdominal distension and not passing stools for two days. The perinatal period had been uneventful, except for transient neonatal hyperbilirubinemia managed conservatively in the NICU on day 2 of life. The neonate passed meconium within the first 24 hours of birth. Written informed consent was obtained from the patient's legal guardian for publication of this case report and any accompanying images.

On physical examination, the infant was irritable but hemodynamically stable. The abdomen was distended and tender without any palpable mass. A nasogastric tube drained bilious material. Rectal examination revealed no blood or mucus. Laboratory findings were within normal limits.

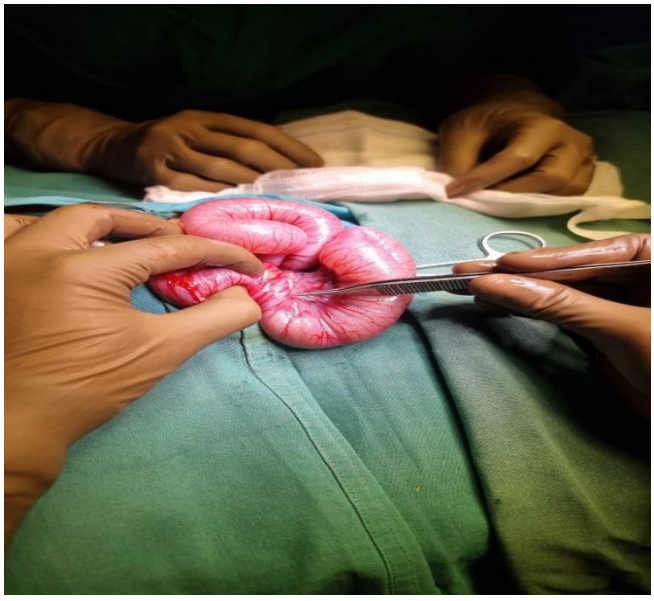

Figure 1: Black arrow showing intussusception

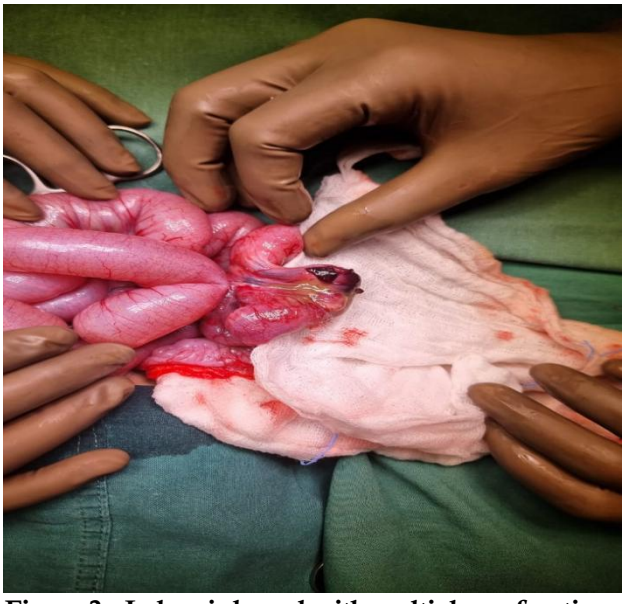

Figure 2 : Ischemic bowel with multiple perforations

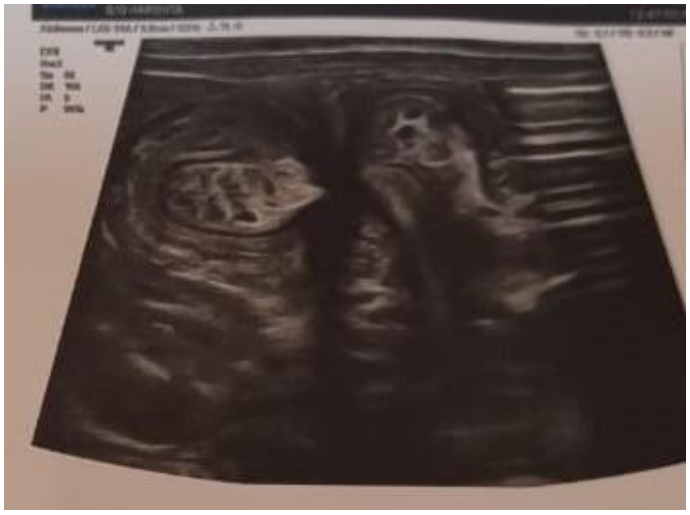

Figure 3: Ultrasound longitudinal image showing a pseudokidney sign

Abdominal ultrasonography showed characteristic findings of intussusception, including the "target" and "pseudo kidney" signs, with no sonographic evidence of perforation. Based on these findings, the neonate was taken for emergency exploratory laparotomy.

Hydrostatic reduction is commonly employed in infants; however, due to the scarcity of cases and the absence of standardized guidelines in neonates, our patient who presented with bilious vomiting underwent prompt surgical exploration. Intra-operatively, an ileocolic intussusception with ischemic bowel with multiple small perforations was identified(Figure 1,2). No pathological lead point was found. A segmental colonic resection with ileocolic anastomosis was performed

Histopathological examination confirmed ischemic changes with multiple small perforations without neoplastic or infectious etiology, supporting a diagnosis of idiopathic intussusception.

Postoperatively, the neonate was managed in the Neonatal intensive care unit with intravenous fluids, antibiotics, and analgesics. On postoperative day 5, superficial wound gaping with purulent discharge was noted. Culture yielded *Enterococcus faecalis*, and intravenous antibiotic therapy was continued for 10 days. Local wound care with autolytic debridement and daily dressings resulted in gradual improvement. Enteral feeding was reintroduced, progressing from nasogastric to spoon feeding and finally to breastfeeding. The patient was discharged in stable condition, with normal bowel function and adequate weight gain at follow-up.

DISCUSSION

Neonatal intussusception is exceedingly rare and differs significantly in presentation and etiology from cases seen in older infants. Most neonatal cases are associated with pathological lead points such as Meckel's diverticulum, intestinal duplications, or congenital tumors.[2,3] In contrast, idiopathic intussusception in full-term neonates is uncommon.

Unlike the classical triad of colicky abdominal pain, palpable abdominal mass, and red currant jelly stools seen in older infants [6], neonates usually present with nonspecific signs like vomiting, abdominal distension, and delayed stool passage.[5] These features can mimic conditions such as necrotizing enterocolitis, leading to diagnostic delays.

In our case, the neonate presented with feculent vomiting and abdominal distension, and ultrasonography proved instrumental in diagnosis, revealing both the "target" and "pseudokidney" signs (Figure 3). This case underscores the value of early ultrasonography in neonates with signs of bowel obstruction. Ultrasonography is a reliable, non-invasive diagnostic tool that can identify intussusception and assess bowel viability using Doppler imaging.[7,8]

While ileoileal intussusception is more common in neonates (61%) [3], our case involved the ileocolic region, making it even more unusual. The absence of a lead point confirmed the idiopathic nature. Surgical exploration remains the mainstay of diagnosis and treatment in neonatal intussusception. While manual reduction is possible in cases with viable bowel and resection is necessary when ischemia is present, as in our patient.[3,9]

This case contributes to the limited data on idiopathic ileocolic intussusception in full-term neonates and reinforces the importance of high clinical suspicion and timely surgical intervention to ensure favourable outcomes.

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