



Bloody Stool in a preterm neonate- Not Always is NEC !

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INTRODUCTION

Intussusception is recognized as the second most common cause of intestinal obstruction in childhood, especially in those between 6 to 18 months of age (1). Its occurrence in neonate is rare and it is even more so among the preterm births. Intussusception in preterm neonate accounts for only 0.3% of all cases of intussusception (1). Due to the rarity and its almost indistinguishable clinical features from necrotizing enterocolitis (NEC) which is far more prevalent among preterm neonates, establishment of the diagnosis is often very much delayed from the time of presentations. We report a case of intussusception in a day 4 of life preterm and demonstrating the importance of an early diagnosis which led to an excellent outcome.

CASE REPORT

A baby girl was delivered preterm at 35 weeks via spontaneous vaginal delivery with the birth weight of 2.3kg. Meconium-stained liquor was seen during the active phase of labour but the delivery was uneventful. She was admitted to neonatal intensive care unit (NICU) shortly after birth due to respiratory distress. She required non-invasive ventilation via nasal continuous positive airway pressure (NCPAP) for 24 hours due to transient tachypnoea of newborn. Intravenous C-Penicillin and Ampicillin were started for presumed listeriosis. The baby was found to be pale at birth although there was no evidence of bleeding found on physical examination. Bedside cranial ultrasound was unremarkable. Her initial full blood count showed a haemoglobin reading of 11 g/dL. She was, however, stable clinically despite anaemic. An opportunistic blood sampling was done at 15 hours of life and showed the haemoglobin level further dropped to 8 g/dL. Packed cell transfusion 15ml/kg was given and the Hb improved to 12 g/dL. The full blood picture showed normochromic anemia with reticulocytosis in keeping with the response to acute blood loss or tissue hypoxia. Feeding was initiated at 24 hours of life and increased gradually. She tolerated full feeding on day 3 of life.

At 78 hours of life, she passed out multiple episodes of mucoid stools (Figure 1) mixed with blood streaks. Clinically she remained active and pink on room air with no fever. Her abdomen was soft and not distended. There was no vomiting. She was initially treated as necrotizing enterocolitis. Her full blood count, venous blood gas and C-reactive protein and abdominal X-ray were all unremarkable. Despite continuously having few more episodes of bloody stools, her overall condition remained stable. This unusual clinical presentation in contrast to a typical NEC prompted an early ultrasound abdomen within 24 hours of the onset of symptoms which revealed an ileocolic intussusception (Figure 2). Gentle pneumatic reduction was successful and she was discharged on day *** of life without complication.

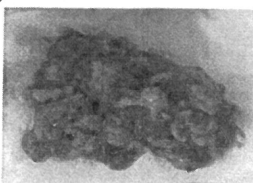


Figure 1: Bloody mucoid stool



Figure 2: Abdominal ultrasound showed intussusceptum (terminal ileum) of 1.06 cm.

DISCUSSION

Diagnosing intussusception in preterm neonates is very challenging as it shares a highly similar bowel symptomatology with necrotizing enterocolitis. Common clinical features include abdominal distension, abdominal pain, bilious vomiting or feeding intolerance, per rectum bleeding, palpable abdominal mass. In neonates, abdominal pain/tenderness is difficult to be evaluated. A palpable abdominal mass in neonatal intussusception has almost never been reported.

Many literatures have consistently reported that one of the clinical clues that should raise the clinician's suspicion of intussusception over NEC is the presence of bowel symptoms in a relatively stable preterm neonate. NEC tends to occur in preterms who have a relatively stormy course of early neonatal encounters whereby intussusception can manifest abruptly in those with a rather uneventful initial hospital stay. The other feature that may help in differentiating these conditions is the progress of the illness. In intussusception, symptoms are usually confined to the abdomen, but the general condition does not deteriorate unless perforation happens. On the other hand, preterms with NEC usually demonstrate general deterioration along with the abdominal signs.

Abdominal ultrasound remains a safe and useful modality to make an early diagnosis. Conventionally, intussusception in preterms, regardless of being diagnosed preoperatively or intraoperatively, has been managed surgically. Our patient is fortunate enough to have the ileo-caecal intussusception reduced without a surgery. This is largely attributed to the early diagnosis made due to high clinical suspicion which led to a prompt intervention before the bowel is compromised.

CONCLUSION

Differentiating between neonatal intussusception and necrotizing enterocolitis in preterm neonates is clinically challenging but very important. High index of suspicion is crucial for early diagnosis of neonatal intussusception to ensure a better outcome.

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