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Case Report

Intussusception in the Newborn - rare presentation

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Abstract:

Intussusception is characterized by abdominal mass, vomiting and blood in stools. However, in neonate it may present with non classical symptoms such as feeding intolerance, abdominal distension and being non-specifically unwell.

A case of intussusception is confirmed with the help of abdominal ultrasound. The purpose of presenting this case report is to suggest a clinical diagnosis of intussusception and awareness of intussusception in neonate as it is a rare presentation.

Keywords: Intussusception, Neonate, Abdominal mass, Imaging.

INTRODUCTION:

Intussusception occurs when one portion of gastrointestinal tract invaginates into an adjacent segment. It is most common cause of intestinal obstruction in infants. The incidence varies from 1 to 4 per 1,000 live births. It is common in children aged 3 months to 2 years old and peak incidence occurs between 3 and 9 months of age.The male and female ratio is 3:1. Sixty percent of patients are younger than 1 year of age, and 80% of the cases occur before age 24 months. It is rare in neonates and comprises 0.3 to 1.3 % of all intussusceptions[1]. The usual presentation, pathology, and management of neonatal intussusceptions are quite different from the usual infantile and childhood intussusception[2]. In neonates and premature infants, it accounts for only 3% of intestinal obstruction and 0.3% (0%–2.7%) of all cases of intussusception[1-4]. Although small bowel intussusceptions are very rare in infants, it is common in neonates and premature infants[4].The diagnosis of intussusception in neonates is difficult. It is less frequent than the other neonatal abdominal issues (Less than 1.3% of all cases of intussusception occur in term neonates). The clinical features show great similarities with necrotizing enterocolitis (NEC). The intussusception is frequently located in the small bowel and the commonest site for same is usually ileoileal or ileocolic[1-4].

CASE REPORT:

Here we report a case of single, term, female neonate, one day old, was born on 5 August, 2018, through vaginal delivery, weighing 3 kg. She was brought to emergency with complain of not crying immediately after birth and difficulty in breathing.

On examination: The baby was lethargic and tachypneic with respiratory rate of 68/min. Her heart rate was 130/min and o_2 saturation was 65%. Cry was poor and moro reflex was absent. Baby was admitted in NICU and managed conservatively on line of birth asphyxia with EOS with oxygen by hood and intravenous antibiotics. Feed was started with 5 ml expressed breast milk and gradually increased to 30 ml. Feed was initially tolerated but after 24 hours she developed multiple episodes of vomiting and blood clots in stool. On examination abdomen was distended and mass was palpable. Auscultation showed increased bowel sound. Baby was kept nil orally. Antibiotic was changed and she was given intra venous fluids. Sepsis workup was normal. X-ray abdomen and USG whole abdomen was done which showed rectosigmoid intussusception.

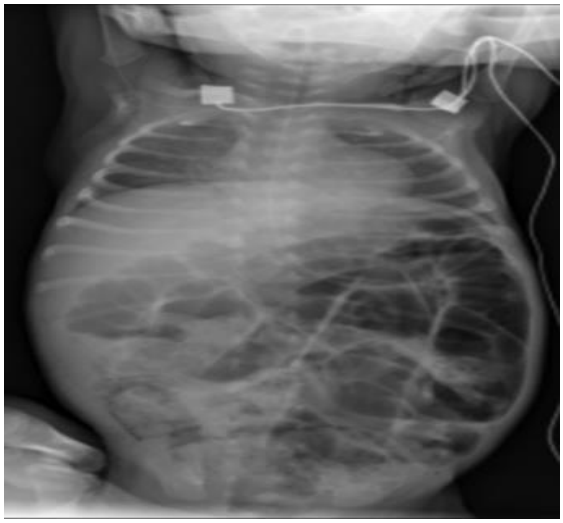

Figure 1: Erect X-ray abdomen: showed multiple dilated bowel loops.

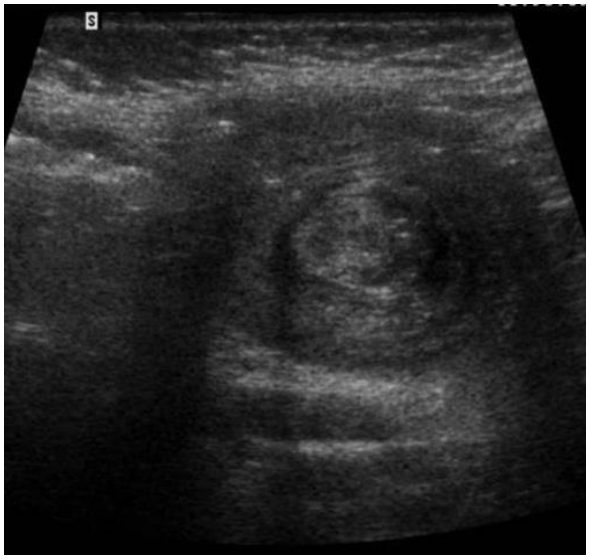

Figure 2: USG Abdomen showing Target sign, also known as Crescent in a doughnut sign.

This confirmed the diagnosis of rectosigmoid intussusception in newborn.

Investigation: Complete blood count: Haemoglobin-18.6gm%, Total Leukocyte Count- 21,200, Differential Leukocyte Count: Neutriphil-66%, Lymphocyte-25% ,Monocyte-2, Eiosinophil-07, Basophil-0, Platelet count-1.35 lacs/cumm, Packed Cell Volume- 52.7%, CRP- Negative Prothrombine Time - Normal

APTT – Normal APT test- Negative

Patient was treated with Hydroreduction with 30 ml normal saline was done. Intussusception was reduced successfully. It is very simple, efficient, economical and quick method. The duration of the procedure ranges between two minutes and thirty minutes, with the majority being under ten minutes.

DISCUSSION:

In this study our case was a newborn which was diagnosed as intussusception, which is a rare presentation. Intussusception is rare in the newborn [1]. Vomiting is often bile stained and blood in stool is often a common sign. When vomiting is present it usually leads to the diagnosis of intestinal obstruction but if blood is present in the stool the diagnosis may be delayed [3,4]. Our case also presented as feeding intolerance, vomiting and blood in stool. Evidence of abdominal pain and abdominal mass are uncommon features but when these are present the diagnosis of intussusceptions can be made with confidence[5]. Gorgen–Pauly et al in their analysis of 17 cases of neonatal intussusception reported presence of abdominal distension in 100% cases, bilious aspirate in 76% cases (10/17), bloody stool in 58% cases (10/17) and rarely a palpable abdominal lump in 5/17 cases[6]. Awareness of this rare entity presenting as bleeding per rectum among neonatologists is critical to obviate the delay in diagnosis. Twenty nine per cent cases are associated with a pathological lead point such as a hamartoma, a

Meckel's diverticulum or a duplication cyst[7]. The diagnosis in our case was made on the basis of signs, symptoms and ultrasound finding. Our case was differs from the rest cases as there was no lead point. Our patient was neonate, unlike most idiopathic ileo-colic intussusceptions which are typically seen in the infant.

Many authors reported that a lead point in the intestine allows a bowel segment (intussusceptum) with its mesentery to telescope into the adjacent distal segment (intussuscipiens) causing the obstruction[8-9]. Our case is one of the reported cases where diagnosis of intussusceptions was made early in the course which led to early conservative or operative management.

CONCLUSION:

Any newborn which develops vomiting and blood in stool should be suspected for intussusception. Successful management of intussusceptions in neonate requires a timely and accurate diagnosis. Early diagnosis of disease results in better prognosis.

Financial and other competing interests: none

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POINT TO LEARN: -

Though uncommon cause of blood in stool in neonates intussusception must be considered in differential diagnosis of any neonate presenting with bile stained vomiting and blood in stool. This can be easily diagnosed or ruled out on the basis of non-invasive imaging techniques such as X-Ray erect abdomen and ultrasonography.