

A Case of Intussusception In A Six-Week-Old Male Infant

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Abstract

A six-week-old term male baby presented to the emergency room (ER) on account of bleeding per rectum, vomiting and palour. He initially had bloody stools but later mucus with frank blood and clots. There was also three episodes of non bilious vomiting and episodic cry. There was no history of fever, constipation or diarrhea although the mother introduced infant formula to compliment the breastfeeding. His delivery history was not adversely eventful. He was very pale with PCV of 27% necessitating blood transfusion at presentation although vital signs were essentially normal. Initially at presentation, there was no mass palpable but about six hours into admission, he became irritable and refusing feeds. He was after that re-examined and a mass was palpated in the left lumbar region. An urgent abdominal USS done was confirmatory. He had a surgical reduction with a good post-op response.

Keywords: Intussusception, 6 weeks old, bleeding per rectum

Introduction

Background

Intussusception occurs when a portion of the alimentary tract is telescoped into an adjacent segment. It is the most common cause of intestinal obstruction between three months and six years of age. [1–3] Sixty percent of patients are younger than one year, and 80% of the cases occur before 24 months; [3] it is rare in children below three months old. [4] The diagnosis of Intussusception in this age group may be delayed hence a high index of suspicion is required. The aetiology is largely unknown, but risk factors include respiratory adenovirus infection, tetravalent rhesus reassortant Rota virus vaccine (now banned), gastrointestinal infection, introduction of new food proteins, presence of lead point like meckel's diverticulum, lymphoma, appendicial mass etc. [5,3]

Case Presentation

A.E a six-week-old term male infant who resides with his Yoruba Christian parents. He was brought into the ER on account of 12 hours history of bleeding per rectum, vomiting of three episodes, palour. It was initially bloody stool but subsequently frank blood with mucus which was associated with passage of clots. He had several episodes. There was no bleeding from any orifice and no previous episodes. No abnormal post-circumcision bleeding. There was also a history of post-prandial, non-projectile, non-bloody or bilious vomiting. No

abdominal distension or swelling and no fever. No preceding diarrhea, URTI or body rash.

Mother feeds with breast milk and infant formula

Pregnancy, delivery and neonatal period were not adversely eventful or contributory. Has had OPV, BCG and HBV vaccines. He is the fourth of four children.

On examination, he was conscious, irritable, pale, not dehydrated, not febrile.

His weight was 4kg (95% of expected)

Abdomen was full, moved with respiration, soft, no area of tenderness and no palpably enlarged organ. The rectum was empty, no mass was felt and examining finger was stained with bright red blood. Other systems examination was essentially normal. Random blood sugar done were normal. FBC showed PCV of 27% (was transfused), total WBC $14 \times 10^9/L$, Neutrophil: 60%, Lymphocyte: 25%. EUCr showed Na – 140mmol/L, K – 4.1mmol/L, Ur- 3.5mmol/L, Cr- 30 μ mol/L.

The initial assessment was sepsis and to keep in view a bleeding polyp / diverticulum. Antibiotics were commenced. About six hours into admission, he began to cry excessively, refused feeds and had an episode of vomiting. He was re-examined and a longitudinal mass was palpable in the lumbar region. Abdominal USS showed dilated

bowel loops with no peristalsis; a mass measuring 23mm in diameter suggestive of intussusception was seen.

Parents were counseled but refused to give consent for surgery until after about 48 hours.

He had an exploratory laparotomy, the intra operative findings were: a gangrenous colo-colonic intussusception extending from the distal transverse colon to the descending colon with apex in the anus. He had a left hemi-colectomy and colo-colonic anastomosis done; also had blood transfusion intra – op. He was commenced on breast feeding about 36 hours post-op. He was moving his bowel normally. Post-op PCV and EUCr were essentially normal. He was discharging five days post-op. child was essentially normal with wound well apposed during the follow up visit a week after.

Discussion

The initial signs and symptoms of intussusception in this age group may be non-specific and simulate sepsis hence a high index of suspicion is required. Although, in a previously well child like this child, it is important to consider intussusception especially with an identifiable likely risk factor (introduction of infant formula, a foreign protein) and also passage of bloody mucus per rectum. Studies have reported that about 60% pass bloody mucus which is consistent with what was found in this child although most common in the late stage. [3,5,6] Vomiting occurs in most cases and has been found to be the most consistent finding in intussusception. [7] It usually become bilious in the later stage which was present in this child although Eshel *et al* [8] found non bilious vomiting in 60% of a case review. If

References

1. Lloyd D, Kenny S (2004) The surgical abdomen in: paediatric gastrointestinal disease. In: Walker W, Goulet O, Kleinman R (eds). Paediatrics gastrointestinal disease: pathophysiology, diagnosis, management. BC Decker: Ontario. p 604.
2. Boris NW, Dalton R. Disruptive behavioural disorders. In: Kliegman R, Behrman R, Jenson H, Stanton B (eds). Nelson Textbook of Paediatrics. Elsevier.: Philadelphia., 2007.
3. Kliegman R, Behrman, Jenson. Nelson Textbook of Paediatrics. In: Saunders W (ed). Nelson Textbook of Paediatrics. Elsevier: Philadelphia, 2016, pp 1812–1813.
4. Khitam M, Elaskassem M (2014) Incidence and risk factors for Intussusception among children in Northern Israel from 1992-2009, a retrospective study. BMC Paediatr. 14: 218.
5. Basra S, Grewal D, Hiremath R, Verma V, Chawla V, et al. (2022) Intussusception - A common entity but seldom diagnosed (lesson learnt from case series for family physicians). J Fam Med Prim Care. 11(6): 3356–59.
6. Newman J, Schun S (1987) Intussusception in babies under four month of age. CMAJ. 136(3): 266–269.
7. Bhomwick K, Gagandeep K, Anuradha B (2009) Retrospective surveillance for intussusception in under five years in south India tertiary hospital. J Heal Popul Nutr. 2013: 660–663.
8. Eshel G, Barr J, Klin B, Heyman E, Vinograd I, et al. (1997) Intussusception: a 9 year survey (1986-1995). Paed Gastroenterol Nut. 24(3): 255–256.
9. Adiotomre P, Asumeng E, Godbole P (2013) Case report: Intussusception in a 7 week old baby. BMJ Case Rep. 2013: bcr2012008518.

child has a bilious vomiting at onset, this would have raised a suspicion of an intestinal obstruction and followed immediately with an imaging. Also, the age of the child, history of non-bilious vomiting in the setting of a full blood count picture of sepsis made sepsis top in the differentials before the other symptoms ensued. Furthermore, with the degree of bleeding presented by this child, vomiting and no fever, one might also consider an intestinal mal-rotation, volvulus or a bleeding meckel's diverticulum. But the absence of constipation and initial non bilious vomiting made them less likely. Just like in the baby presented, Adiotomre *et al* [9] reported a seven-week-old baby with initial features of sepsis but later palpable mass and bleeding per rectum. Newman *et al* studied 25 babies who were less than four months old who were treated for intussusception. Nine had no abdominal pain (as suggested by the excessive and episodic cry), 24 had bleeding per rectum, vomiting was seen in 22 babies, eight babies presented with the triad of abdominal pain, vomiting and bleeding per rectum.

In conclusion, although intussusception is uncommon in this age group it can occur especially in the setting of a possible risk factor. It should therefore be included in the differential diagnosis of a child with vomiting, bleeding per rectum, pallor and excessive crying.

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