World Journal of Surgery and Surgical Research

Research Article
Published: 25 Mar, 2019

Rare Presentation of Total Ileocolic Intussusception with Rectal Prolapse in a Child

Saran Lotfollahzadeh[1], Khashayar Atqiaee[1], Leily Mohajerzadeh[1], Maryam Panahi[1], Armin Vosoughi[1,2] and Mohsen Rouzrokh[1]**

[1]Pediatric Surgery Research Center, Pediatric Institute for Children's Health, Shahid Beheshti University of Medical Sciences, Iran

[2]Neurosciences Research Center, Tabriz University of Medical Sciences, Iran

Abstract

Introduction: Intussusception is one the most frequent causes of acute bowel obstruction in infants and toddlers. It can be seen in all pediatric ages from prenatal to the late teens but tends to happen as small bowel obstruction, postoperatively. About 15% of infants and children present without any obvious pain. Occasionally, intussusception could be palpated on the rectal exam (5%) and its prolapse out of rectum may be a serious sign.

Case Presentation: We present an 11-year-old boy with rectal prolapse and rectorrhagia, who at first was admitted to the cardiology ward due to cardiac problems, but ended up with surgical exploration and resection of involved bowel.

Conclusion: Although 75% of intussusceptions cases are found within first two years of life, it should be considered in the differential diagnosis list in older children and teens in cases of abdominal pain and obstruction to prevent delayed diagnosis and extensive surgery.

Keywords: Pediatric Intussusception; Rectal Prolapse; Resection; Rectorrhagia

Introduction

Intussusception is one of the most frequent causes of acute bowel obstruction in infants and toddlers and probably the second most common cause of acute abdominal pain in infants and preschool children after constipation. With the incidence of 1 to 4 in 2000 infants and children, it has been reported in all pediatric ages from the prenatal period to teenagers [1], 75% of which could happen within first two years and 90% within three years of age [2]. Complicated intussusceptions leading to ischemic necrosis needs more than 72 hr to occur. Mortality rises in five days if bowel obstruction, perforation or sepsis remains undiagnosed [3]. There are four main types of intussusceptions: (i) general (permanent, transient); (ii) specific (idiopathic, with a pathologic lead point, post-operative); (iii) anatomic (ileocolic, ileoileocolic, appendicocolic, cecocolic, colocolic, jejunojejunal, ileoileal, around indwelling tubes; and (iv) others (recurrent, neonatal) [4].

Postoperative intussusceptions is the third most common cause, with an incidence of almost 1% [5]. The risk of bowel obstruction after pediatric laparotomy is about 5%; 80% of which occur within the first two years of surgery [5]. Regardless, 3% to 10% of the bowel obstructionis caused by postoperative intussusceptions [6]. Postoperative intussusception and therefore bowel obstruction tends to occur after retroperitoneal dissection or extensive bowel procedure sas well as extra-abdominal surgeries [7].

Irreducible cases are the most frequent cause of operation, which are complicated with perforation from the enema, clinical evidence or imaging document of pathologic lead point [8]. Occasionally intussusceptions passes to more distal regions and might be palpated on the rectal exam (5% of cases). Even in some cases, this prolapse out of rectum might be mistaken for rectal prolapse. Rectal bleeding can be the last sign to present (mucus-like blood or currant jelly). Delay in diagnosis may lead to bowel ischemia and bacteremia, as well as bowel perforation and finally death [9].

Case Presentation

An 11-year-old boy was referred to our hospital from another hospital where he was admitted with a history of cardiac problems, complaining from intermittent colicky abdominal pain from

OPEN ACCESS

Correspondence:
Mohsen Rouzrokh, Pediatric Surgery Research Center, Pediatric Institute for Children's Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran, Tel/Fax: 00982122924488; E-mail: mohsen_rouzrokh@yahoo.com

Received Date: *20 Dec 2018*
Accepted Date: *20 Mar 2019*
Published Date: *25 Mar 2019*

Citation:
Lotfollahzadeh S, Atqiaee K, Mohajerzadeh L, Panahi M, Vosoughi A, Rouzrokh M. Rare Presentation of Total Ileocolic Intussusception with Rectal Prolapse in a Child. World J Surg Surgical Res. 2019; 2: 1112.

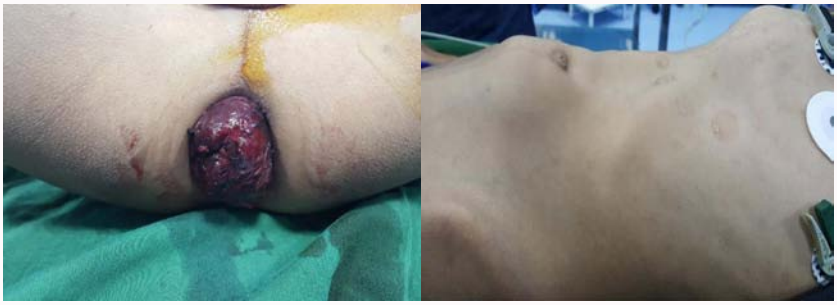

Figure 1: Left: prolapse of bowel from rectum; Right: bulging in lower quadrants of abdomen.

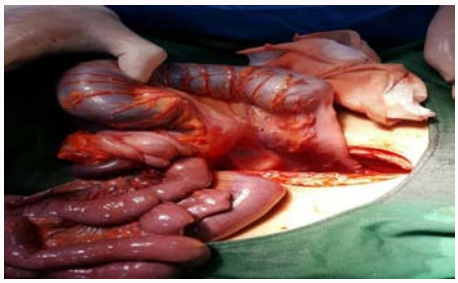

Figure 2: Large ileocolic intussusception up to rectal region, prior to reduction.

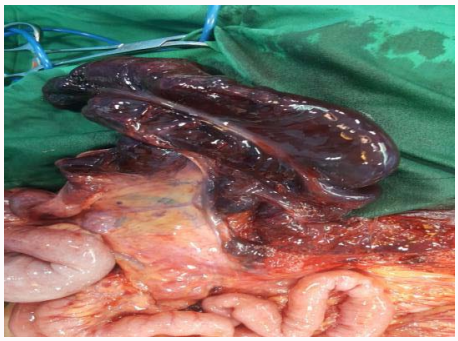

Figure 3: Post-reduction view of the colon.

the previous night and multiple episodes of vomiting containing food, along with bloody diarrhea and bulging in lower abdominal quadrants. He had a history of open heart surgery, the previous year, for AVR (aortic valve replacement) and had been on warfarin treatment, since.

In the physical exam, he had normal vital signs and mild tenderness in lower abdominal quadrants and evidence of bulging and prolapses of bowel mucosa from rectum with fresh blood in the rectal exam (Figure 1). Sonography confirmed evidence of intussusceptions. In laboratory data, he had leukocytosis of 14000/µl and hemoglobin of 10 mg/dl with a normal platelet count of 400000/µl and INR of 2.7, which was corrected by infusion of FFP. After being hydrated and administering prophylactic antibiotics, he was taken to the operating room and laparotomy was carried out. There was evidence of large ileocolic intussusceptions up to rectal region (Figure 2), which manual reduction began carefully from the distal part by milking toward proximal to avoid more extensive resection. There was evidence of severe ischemia and gangrene in ascending colon. Then an extended right hemicolectomy was performed (Figure 3). The patient was discharged with complete oral tolerance, six days later. No obvious pathologic lead point was reported in pathology exam except for hemorrhagic necrosis in the respected sample.

Conclusion

The four classic symptoms of pain, vomiting, currant jelly stool and mass along with high clinical suspicion is needed for the diagnosis of intussusceptions. Nonetheless, intussusceptions presenting in the form of a prolapse through the anus is a rare condition indicating a serious sign and it should be in mind not to be misdiagnosed as rectal prolapse. Early diagnosis and surgical management are mandatory to reduce the risk of irreversible bowel ischemia and resection of long segments of bowel.

References

1. Santos V, Espinosa J, Lucerna A. Intussusception in an infant with two non-diagnostic abdominal ultrasound studies. World J Emerg Med. 2019;10(1):51-4.
2. Hassan A, Zain M, Ghazaly Y. Primary neonatal ileoileal intussusception. J Pediatr Surg Case Reports. 2019;41:18-20.
3. Bradshaw CJ, Johnson PR. Intussusception. Paediatrics and Child Health. 2018.
4. Reijnen JAM. Intussusception: a clinical and experimental study. 1990:[Sl:sn].
5. Singh AP, Gupta AK, Barolia DK, Ansari M. Post-Operative Intussusception in a Child after Pseudo Cyst of Pancreas Excision. National J Health Sci. 2018;3:61-6.
6. Bai YZ, Chen H, Wang WL. A special type of postoperative intussusception: ileoileal intussusception after surgical reduction of ileocolic intussusception in infants and children. J Pediatr Surg. 2009;44(4):755-8.
7. Linke F, Eble F, Berger S. Postoperative intussusception in childhood. Pediatr Surg Int. 1998;14:175-7.
8. Shen G, Zhang C, Li J, Zhang J, Liu Y, Guan Z. Risk factors for short-term recurrent intussusception and reduction failure after ultrasound-guided saline enema. Pediatr Surg Int. 2018;34(11):1225-31.
9. Levinson H, Rimon A, Scolnik D, Amarilyio G, Glatstein M. Fever as a Presenting Symptom in Children Evaluated for Ileocolic Intussusception: The Experience of a Large Tertiary Care Pediatric Hospital. Pediatr Emerg Care. 2019;35(2):121-4.