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Rare Colocolic Intussusception in Children as a Manifestation of Peutz–Jeghers Syndrome: A Case Report

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Keywords: Intussusception; Colocolic; Peutz–Jeghers syndrome; Hamartoma; Hydrostatic reduction.

Abbreviations: LL: Laterolateral; AP: Anterioposterior; KK: Craniocaudal.

Abstract

Background: Intussusception is a rare but potentially life-threatening condition in children. Colocolic intussusception is extremely uncommon in pediatric patients and is usually associated with a pathological lead point.

Case presentation: We present a case of a 10-year-old girl with intermittent abdominal pain and hematochezia. Ultrasound revealed colocolic intussusception. Hydrostatic reduction under ultrasound guidance was successfully performed. Subsequent CT and colonoscopy identified intraluminal masses. Histological analysis confirmed hamartomas associated with Peutz–Jeghers syndrome. The patient underwent laparoscopic resection and recovered without complications.

Conclusion: This case highlights the importance of multidisciplinary collaboration in the diagnosis and treatment of intussusception. Radiologists play a crucial role not only in diagnosis but also in minimally invasive treatment approaches such as hydrostatic reduction.

Introduction

Intussusception is defined as the telescoping of a proximal bowel loop into a distal segment, leading to bowel obstruction and possible ischemia. It is among the most common acute abdominal emergencies in children and requires prompt diagnosis and management. Radiologists play a pivotal role in both diagnosis and treatment.

While ileocecal intussusception is the most frequent type in pediatrics, colocolic intussusception is rare, particularly in children, and often related to an underlying pathological lead point such as a hamartoma, Meckel's diverticulum, or polyp. We report a rare pediatric case of colocolic intussusception associated with Peutz–Jeghers syndrome.

Case Report

A 10-year-old girl presented with intermittent abdominal pain in the left hypogastrium, lasting several hours, accompanied by hematochezia.

Ultrasound findings: A target-like lesion measuring 44 × 27 mm was observed in the left hypogastrium, consistent with colocolic intussusception. Color Doppler demonstrated preserved perfusion of the bowel wall without necrosis.

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Management: Hydrostatic reduction under ultrasound guidance was successfully performed with the assistance of a pediatric surgeon and anesthesiologist. Post-reduction ultrasound demonstrated a residual hypoechoic mass (~4 × 5 cm) at the site of intussusception.

Further evaluation: Contrast-enhanced CT of the abdomen revealed a well-defined soft-tissue mass (4 × 5 × 5 cm) in the descending colon. Colonoscopy confirmed a larger multilobulated tumor at 50 cm from the anal verge and a smaller bilobulated lesion at 40 cm.

Histopathology: Biopsy confirmed hamartomas associated with Peutz–Jeghers syndrome.

Surgical management and outcome: Laparoscopic resection of tumorous deposits with disinvagination was performed. The patient was discharged in good condition one week later.

Discussion

Intussusception represents telescoping of one intestinal segment into another, leading to venous congestion, bowel wall edema, and eventual ischemia if untreated. While idiopathic forms predominate in infants, secondary intussusceptions with a pathological lead point are more common in older children [2,3].

Colocolic intussusception is rare, particularly in pediatrics, and is usually caused by tumors, polyps, or hamartomas [1]. Peutz–Jeghers syndrome, an autosomal dominant condition, predisposes patients to multiple hamartomatous polyps throughout the gastrointestinal tract, which may serve as lead points for intussusception.

Ultrasound is the diagnostic modality of choice, with high sensitivity in identifying the “target sign” and assessing bowel wall viability [5]. Hydrostatic enema reduction under ultrasound guidance remains the gold standard of conservative treatment [4]. In recurrent or complicated cases, surgical exploration is indicated, with laparoscopy increasingly favored [6,7].

Our case demonstrates the rare occurrence of colocolic intussusception in a child, successfully managed with a combination of hydrostatic reduction, cross-sectional imaging, colonoscopy, and minimally invasive surgery.

Conclusion

Radiologists are essential in both the diagnosis and minimally invasive management of pediatric intussusception. Hydrostatic reduction under ultrasound control remains the gold standard of conservative treatment. In this rare case, colocolic intussusception caused by a hamartoma associated with Peutz–Jeghers syndrome highlights the importance of rapid diagnosis, multidisciplinary collaboration, and tailored surgical management to prevent unnecessary complications.

Author declarations

Author contributions

Conceptualization: V.W., M.R., S.G.; Writing—original draft: V.W., S.G.; Writing—review and editing: V.W., V.L.; Visualization: V.W.; Supervision: S.G., V.L. All authors have read and approved the final version of the manuscript.

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Informed consent statement

Written informed consent was obtained from the patient’s legal guardians for publication of this case report and accompanying images.

Data availability statement

The datasets generated during the study are available from the corresponding author upon reasonable request.

Conflicts of interest

The authors declare no conflict of interest.

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