Transanal Protrusion of Nonischemic Compound Intussusception

Sir,

Transanal protrusion of intussusception (TAPI) is defined as the invagination of an intestinal segment (proximal) into the adjacent segment (distal) with exteriorization of the head of the intussusceptum through the anus.[1,2] Nonischemic intussusception is a distinct clinical entity that is characterized by less acute symptoms of longer duration.[3] Here, we present a very rare case of transanal protrusion of nonischemic compound intussusception which was earlier misdiagnosed as rectal prolapse.

A 3-month-old male (5500 g) child presented with complaints of mass protruding from the anus for 1 day, along with crying episodes, bilious vomiting, and abdominal distension for 5 days. The patient was referred from peripheral hospital with diagnosis of rectal prolapse. There was a history of unsuccessful attempts at reduction of mass and history of diarrhea along with few episodes of blood in stools.

On examination, the patient was pale but hemodynamically stable. There was mild-to-moderate abdominal distension with mild tenderness (on left side) and muscle guarding. There was a presence of prolapse of purplish mass from rectum on perineal examination [Figure 1]. Finger could be insinuated between protruding mass and rectal wall on digital rectal examination (DRE).

Plain abdominal radiograph demonstrated small bowel obstruction with multiple air-fluid levels. Preoperative optimization was performed. At laparotomy, the prolapsed bowel mass was pushed inside gently into the abdomen by the second assistant, and peroperative manual reduction of compound intussusception (ileocolocolic) was performed. Fixation abnormality of cecum and ascending colon was present in the form of hypermobile cecum [Figure 1]. The apex of intussusception on reduction was dusky and congested; the color of the terminal ileum improved and its viability was restored after application of warm saline-soaked sponges over 15–20 min [Figure 1]. A final diagnosis of transanal protrusion of nonischemic compound intussusception was done. Postoperatively, the patient was managed in intensive care unit. Enteral feeding was gradually started on the 2nd postoperative day; the final outcome was favorable.

The classical presentation of intussusception constitutes colicky abdominal pain, bloody stools (red currant jelly), and a palpable (sausage shaped) abdominal mass. Nonischemic or chronic intussusception is a distinct clinical entity, a variant of acute intussusception.[3] Its incidence according to large series of patients with intussusception was 13.5%. It is usually seen between 1 and 5 years of age.[3] In nonischemic intussusception, M:F ratio is 3:1.[1] In our patient, the patient age was unusual (3 months). Children with this variant usually have incomplete bowel obstruction, in the early stage of the disease. Clinical features include abdominal pain of less intensity in 3/4th of the pediatric patients, vomiting in 2/3rd, and diarrhea in 1/3rd patients.[3] Rectal bleeding and abdominal mass are observed in <50% of the cases. The duration of illness in this entity is longer and is usually present between 5 (our patient) and 10 days of onset of disease.

TAPI is an unusual delayed manifestation of pediatric intussusception, especially in infants.[1,2] The average age of presentation is 5–12 months.[4,5] Ileocolic is the
most common subtype to protrude, with females more than males. It can present without the chief features of intussusception. In a recent study from Indian subcontinent, TAPI was reported to be only 1% (2) among 198 paediatric intussusception.[2] It is usually seen in developing nations of Africa and Asia.[4,5]

Proposed pathogenetic mechanisms of TAPI are increased intestinal peristalsis following gastroenteritis, fixation abnormality of cecum/hypermobile cecum and ascending colon (as seen in present case), nonfixation of descending colon and delayed intervention.[2] Late presentation in our case was due to wrong diagnosis of rectal prolapse and delayed referral. Surgery is the mainstay of treatment for TAPI, especially with peritonitis, evidence of bowel perforation, and failed enema reduction.[1,2,4]

TAPI must be differentiated from rectal prolapse as it has a higher mortality rate than the latter. Rectal prolapse has relatively late (2–3 years) presentation. DRE differentiates it from TAPI. Examining finger reaches apex of the sulcus between protruding mass and rectal wall in rectal prolapse, while in intussusception finger can be insinuated between protruding mass and rectal wall. Abdominal ultrasound is useful in confirming the diagnosis. Poor prognosis is associated with delayed presentation (>24 h), presence of peritonitis, gangrenous bowel, and bowel resection. Favorable outcome in our patient with TAPI was due to nonischemic variant of intussusception (patient factors), expeditious surgical intervention, and intensive postoperative care. A high index of suspicion for TAPI must be present in an infant presenting with mass protruding from the anus with or without features of intestinal obstruction. A meticulous clinical evaluation with DRE is emphasized.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

Rahul Gupta
Department of Paediatric Surgery, SMS Medical College, Jaipur, Rajasthan, India

Address for correspondence: Dr. Rahul Gupta, Department of Paediatric Surgery, SMS Medical College, Jaipur, Rajasthan, India. E-mail: meetsurgeon007@gmail.com

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