

## Adult intussusception

Eric M. Haas, M.D.\*, E. Leon Etter, M.D., Stephen Ellis, M.D., Thomas V. Taylor, M.D.

*Christus St Joseph Hospital, GME-Department of Surgery, 1919 La Branch, Houston, TX 77002, USA*

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A 51-year-old woman had acute onset of emesis and midepigastric pain. Her medical history was significant for intermittent abdominal pain for which she had received an endoscopic workup 2 months prior to presentation, with negative results. The patient was tachycardic and had a tender and distended abdomen and a palpable mass in the hypogastrium. Her white blood cell count was 8,400/mm<sup>3</sup> and hematocrit was 32.8. A computed tomography scan was obtained and showed a bowel-within-bowel configuration (Figs. 1, 2).

Upon surgical exploration an intussusception of the mid jejunum of approximately 30 cm in length was identified. The neck of the intussusceptum was compressed and irreducible. A small bowel resection with a primary anastomosis was performed. Histologic examination of the specimen revealed infarction, hemorrhage, and edema with no evidence of carcinoma at the lead point. The patient experienced no postoperative complications and was discharged on postoperative day 5.

Intussusception is rare in adults with more than 85% to 95% of cases occurring during childhood [1]. The majority of adults have a history of prior episodes of intermittent abdominal pain and vomiting for a least 1 month [2]. The most common presenting symptoms are crampy abdominal pain (71%), nausea and vomiting (68%), abdominal distention (45%), and tenderness (60%) consistent with partial obstruction [1]. Fewer than 20% of cases present acutely with complete bowel obstruction. On computed tomography a bowel-within-bowel configuration suggested by mesenteric fat and vessels compressed between the walls of small bowel is pathognomonic (Fig. 2) [3].

In children, hypertrophy of Peyer's patches in the lymphoid-rich terminal ileum is thought to act as the pathologic lead point [4]. In adults, the exact mechanism is unknown; however, it is believed that any lesion in the bowel wall or

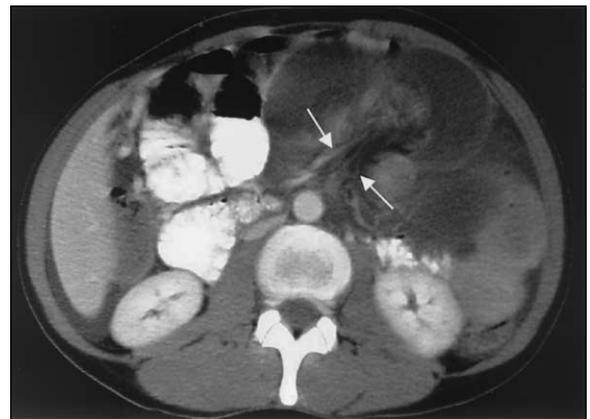


Fig. 1. Abdominal computed tomography scan demonstrating mesenteric fat and vessels evident at the neck of the intussusception (between **arrows**).

irritant within its lumen that alters normal peristaltic activity is able to initiate an invagination [5]. Subsequent peristaltic activity of the bowel produces an area of constriction above the stimulus and relaxation below, thus telescoping the lead point (intussusceptum) through the distal bowel lumen (intussusciens) [5,6].



Fig. 2. Abdominal computed tomography scan revealing the pathognomonic bowel-within-bowel configuration with mesenteric fat and vessels (**large arrows**) between the small bowel wall (**small arrows**).

\* Corresponding author. Tel.: +1-713-756-5684; fax: +1-713-657-7234

E-mail address: ehaas1@hotmail.com

Adult intussusception has a demonstrable cause in more than 90% of cases, with neoplasm accounting for 65% of them [2,3,6]. The likelihood of a malignancy is greater in the colon (40% to 63%) than in the small bowel (14% to 29%) [1,6,7]. Less common etiologies include postoperative factors (adhesions, suture line, intestinal tubes) and miscellaneous causes (Meckel's, sprue, human immunodeficiency virus). Approximately 10% are idiopathic, as was found in the presented case.

Definitive surgical resection is the recommended treatment in nearly all cases [1,3,5,7]. In those involving the small bowel, resection without reduction is recommended unless a relatively large segment of bowel is involved. In such a case, manual reduction may help limit the extent of resection and decrease the risk of short gut syndrome [5]. In the colon strict adherence to resection without manipulation or reduction is advocated owing to the high association of malignant pathology. If the intussusceptum involves the

rectum, preoperative diagnosis should be sought, especially if an abdominal-perineal resection is contemplated [7].

## References

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