Spontaneous Jejunal Intussusception after a Colectomy: A Rare Cause of Postoperative Intestinal Obstruction – A Case Report –

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Intussusception is a rare cause of intestinal obstruction in adults and is most often due to a primary abnormality of the bowel, which serves as the leading point. Idiopathic intussusception in adults is distinctly uncommon, comprising 10% of diagnosed intussusceptions. We report a case of a spontaneous jejunal intussusception in a 48-year-old man that developed shortly after an open colectomy. The 48-year-old man, with no history of a laparotomy, underwent a left hemicolectomy and a left hemihepatectomy for descending colon cancer with liver metastasis. For 14 postoperative days, the patient complained of ileus, and conservative management with a long intestinal tube failed. When the patient underwent a laparotomy, intussusception of the mid jejunum was observed. The intussusception was resected, and no underlying bowel abnormality was identified. This report highlights the importance of considering this rare etiology in patients with ileus who have recently undergone a laparotomy.


Key Words: Intussusception, Idiopathic, Bowel obstruction

INTRODUCTION

Adult intussusception represents 5% of all intussusception cases, and intussusception accounts for only 1–5% of all causes of intestinal obstruction in adults. Almost 90% of adult intussusception cases are secondary to a pathological condition, while 10% have no discernable cause. The present report describes a case of intussusception where no underlying cause was identified.

CASE REPORT

A 48-year-old man, with no history of a laparotomy, presented with intermittent epigastric pain and constipation of 2 months duration. A colonovideoscope indicated a descending colon mass suggestive of a malignancy, while abdominopelvic computed tomography (CT) scanning indicated two hepatic metastases at S4 and S8 (3.0 cm and 1.5 cm respectively). The pathology diagnosis from a colonoscopic biopsy of the colonic mass was a moderately differentiated adenocarcinoma. An uncomplicated left hemicolectomy and extended left hemihepatectomy were performed through an abdominal incision. Examination of the bowel did not reveal any extrinsic abnormalities. For 8 postoperative days the patient complained no flatus and abdominal distension. An abdominal X-ray series showed a bowel gas pattern suggestive of ileus. Conservative management with a long intestinal tube was undertaken for 6 days. Owing to a lack of clinical radiological resolution, the patient underwent a laparotomy. Abdominal sonography or computed tomography were not performed. In the operating room, intussusception of the mid jejunum was observed (Fig. 1). No other intra-abdominal organs, including the previously anastomosed colon, showed abnormalities. The intussusception was resected and found to be 15 cm in length. Grossly, there was no organic lesion, except adhesion. At
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Fig. 1. Intraoperative-appearance of the jejunal intussusception segment (left). Pathology examination revealed adhesions (right upper) with subserosal fibrosis and reactive mesothelial hyperplasia (arrow, right lower). Tumor was not identified in the intestine.

In adults, intussusception is distinctly uncommon, representing approximately only 1% of all causes of intestinal obstruction. While the exact mechanism underlying intussusception development is unknown, any lesion in the bowel wall or irritant within the lumen that alters normal peristaltic activity is believed capable of initiating an invagination. In adults, an organic lesion is found within an intussusception in over 90% of cases, with few idiopathic intussusceptions having been reported. In general, the majority of lead points in small intestine consist of benign lesions such as benign neoplasms, inflammatory lesions, Meckel’s diverticuli, appendix, adhesions, and intestinal tubes. Malignant lesions (either primary or metastatic) account for up to 30% of cases of intussusception in the small intestine. The mechanisms underlying idiopathic intussusception development are also not well understood. Although idiopathic adult intussusception, which accounts for about 10% of cases, is more likely to occur in the small intestine, as was observed in present case, it can occur in the colon.

Since the obstructive symptoms are dominant in most cases, the initial imaging usually involves plain abdominal films, which generally show findings consistent with ileus and may provide information regarding the site of obstruction. Few reports are available regarding the management of idiopathic adult intussusception. Although a report on 37 cases of adult small bowel intussusception found conservative management successful in 84% of cases, many clinicians recommend surgical intervention due to considerations of the underlying etiology and the risk of bowel ischemia. Unenhanced CT may characterize the degree of vascular compromise and predict the need and urgency for surgery. In addition to the timing of surgical intervention, the extent of resection and whether or not the intussusception should be reduced remain matters of controversy. Due to the risk of perforation and spillage of bowel contents and tumor into the peritoneal cavity, many surgeons advocate en-bloc resection of the lesion without reduction. However, a selective approach of reduction before resection has been proposed in other reports. Treatment of adult intussusception depends largely upon its cause, location and the viability of the bowel. If a tumor is present, the tissue is ischemic or the intussusception is localized to the colon, resection is the recommended. Since small intestinal lesions are usually benign, reduction is initially recommended to avoid resecting a long intestinal segment, unless there are signs of bowel ischemia or a suspected malignancy. In the present case, reduction was impossible due to the long intussusception length (15 cm), so a small bowel segment including the intussusception was resected.

In this case, small bowel intussusception occurred immediately postoperatively. Of the different diagnoses for a postoperative patient with ileus, the etiology of adhesion is the most common. However, as the present case illustrates, rare conditions such as intussusception must be considered.
REFERENCES


국문 초록
대장수술 후 장폐쇄의 드문 원인인 공장의 특발성 장중첩증 1예

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성인에서의 장중첩증은 장폐쇄를 일으키는 흔치 않은 질환이며, 대부분 장관의 일차적인 이상이 선두점 (leading point)으로 작용한다. 선두점이 없는 성인의 특발성 장중첩증은 성인 장중첩증의 10%의 빈도로 매우 드물다. 저자들은 개복대장절제술 직후에 공장에서 발생한 특발성 장중첩증 1예를 보고한다. 증례는 외과 수술력이 없는 48세 남자 환자로 간장이 동반된 하행결장에서 좌전방 Hipotonic Intussusception과 좌측 간엽절제술을 시행하였다. 수술 후 14일 동안 환자는 장마비가 지속되었고 장관 내 튜브를 이용한 보존적 치료를 시행하였으나 성공하였다. 환자는 개복술을 시행 받았고, 공장부위의 장중첩증을 발견하여 중첩된 장을 절제하였다. 수술소견과 병리소견상 특별한 이상소견은 관찰되지 않았다.

중심단어: 성인 장중첩증, 특발성, 장폐쇄