Jejunojejunal Intussusception: An Unusual Complication After Feeding Jejunostomy

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Introduction

Intussusception in adults is a rare entity and accounts for 1 % of small intestinal obstruction and up to 5 % of all cases of intussusception [1]. A definitive organic lesion is found in 90 % of adult intussusception.

Postoperative intussusception is a distinct entity which may be idiopathic or associated with mucosal, intramural or extrinsic lead points. These include polyps, lipoma, carcinoids, meckels' diverticulum, melanoma metastasis, lymphoma, suture lines, adhesions, submucosal bowel edema, intestinal dysmotility, long intestinal feeding tubes and chronic dilatation of bowel [2, 3]. We present an unusual cause of intussusception after gastrectomy for gastric cancer.

Case Report

A 59 year old lady diagnosed to have adenocarcinoma of the body of stomach underwent a total gastrectomy with D2 nodal dissection, roux-en-Y esophagojejunostomy and feeding jejunostomy. Her postoperative course was uneventful and she was discharged on normal oral diet. Since she was planned for adjuvant chemotherapy, the feeding jejunostomy was retained as is the practice in our institution. She was readmitted on the 40th post-operative day with symptoms of subacute intestinal obstruction. She was given a trial of conservative management but she did not improve. A gastrograffin study revealed an obstruction distal to the feeding jejunostomy site. She had an exploratory laparotomy

which revealed retrograde jejunojejunal intussusception distal to the feeding jejunostomy site, with the tip of the feeding tube acting as the lead point (Fig. 1). The intussusception was reduced by milking technique and releasing the adhesions. The bowel loop was found to be viable. The feeding tube was removed and the jejunostomy site closed. She had an uneventful postoperative stay thereafter.

Discussion

Intussusception following gastrectomy is a rare complication and the reported incidence is less than 0.1 % [4]. The most common type of intussusception after gastric surgery is retrograde jejunojejunal intussusception, and jejunogastric intussusception has been rarely reported [4]. A variety of postoperative conditions, such as adhesions around the suture lines, a long intestinal tube, increased intra-abdominal pressure, shortening of the jejunal mesentery, and reverse peristalsis, have

Fig. 1 Intraoperative picture showing the retrograde jejunojejunal intussusception with arrow heads indicating A- Intussuscepien and B- Intussusceptum, just prior to its reduction

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been proposed as possible mechanisms of intussusception after gastric surgery [5, 6]. In this report, the feeding jejunostomy tube was the lead point for the retrograde jejunojejunal intussusception.

Postoperative intussusception due to feeding jejunostomy is irreversible and involves a long segment of the intestine. The risk of intussusception increases with increasing calibre of the feeding tube or longer length of the tube placed with the bowel segment, with distal tip migration acting as a lead point to initiate intussusception [7, 8].

Diagnosis of adult intussusception is difficult and delayed since clinical presentations are mostly nonspecific and asymptomatic in 20 % of cases. Abdomen pain is the most common presenting symptom and is seen in 70 % of cases [9]. Idiopathic postoperative intussusception in adult occurs in the age between 45 and 50 years and is commonly seen on the 4th or 5th postoperative day and jejunojejunal intussusception is the most common type [10], whereas postoperative intussusception following a lead point presents late after abdominal surgery. Imaging with an x-ray abdomen, oral barium with small bowel follow through series, barium enema, sonography and CT scan abdomen are helpful in diagnosing postoperative intussusception in adults [11–14].

Surgery is the mainstay of treatment in adult intussusception [15]. There is no established treatment strategy and should be individualized for each case. Non operative treatment strategy is not recommended in adults as in pediatric groups. Surgical procedure may be reduction or resection based on the intraoperative findings. Resection is inevitable if the affected segment is non-viable [16–18].

In conclusion, jejunojejunal intussusception is an unusual complication after feeding jejunostomy and requires a high index of clinical suspicion for early diagnosis. The feeding jejunostomy technique, tube calibre and length should also be standardised to minimise the complications.

Conflict of interest None.

Source of support None.

Disclaimers None.

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