

Ileostomy Stump Intussusception: A Rare Postoperative Complication

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Citation

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Abstract

In adults, intussusception is rare. We present a case of a 30-year-old male who was admitted to the Accident and Emergency Department following gunshot injury in the lower abdomen. The patient was operated upon for bowel, bladder and rectal perforations. Post-operatively, he developed abdominal pain and was found to have ileostomy stump intussusception on radiological investigations. Reduction could not be achieved; therefore, right hemicolectomy was carried out. The patient made an uneventful recovery and is well till date.

INTRODUCTION

In adults, intussusception is rare accounting for less than 0.1% of all adult hospital admissions and for only 5-16% of all intussusceptions.¹ An organic lesion is usually identifiable as a cause of adult intussusception in about 90% of cases.¹ An ileostomy stump presenting as a cause of intussusception is very rare, especially in an adult. We present a case of a 30-year-old male with imaging findings and difficulties experienced in diagnosis.

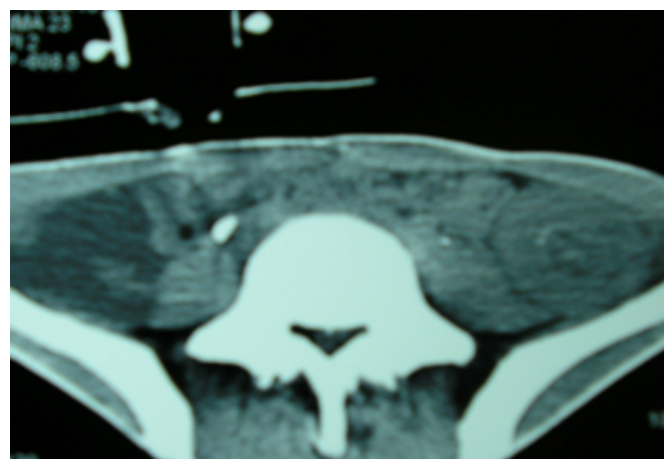
CASE REPORT

A 30-year-old male was admitted to the accident & emergency department following gunshot injury in the lower abdomen. An emergency laparotomy was done which revealed multiple perforations at two different places in the ileum, a perforation in the urinary bladder and also in the anterior & posterior wall of the rectum. The bullet was lodged in the presacral space. One segment of the ileum having multiple perforations was resected and an end-to-end anastomosis was carried out. The second segment of ileum bearing perforations which was about one foot away from the ileocaecal junction was excised and an end ileostomy was performed. The Bladder and rectal perforations were closed and the bullet was removed via the anal route. Post-operatively, the patient started complaining of abdominal pain with occasional vomiting. Plain X-ray of the abdomen at this stage was normal. Ultrasonography (USG) also did not contribute to any cause. The patient was managed with analgesics and intravenous fluids. This problem became recurrent till the patient started passing lots of sticky watery

fluid which was occasionally blood-tinged. Keeping in mind the rectal injury and perforations in the posterior wall of the rectum in the region of the sacrum, proctoscopy was carried out which revealed a 2 x 2cm ulcer on the posterior wall with infected granulation tissue. Since the patient was not improving, a CT scan of the abdomen was carried out which revealed intussusception (Figure 1). Thereafter a second laparotomy was carried out which showed that the distal left-over stump had intussuscepted into the colon. Reduction could not be achieved; therefore, a right hemicolectomy was carried out. The patient made an uneventful recovery and is well till date.

Figure 1

Figure 1: Axial CT section at lower abdominal level shows 'target sign' on left side & empty caecal fossa on right side in addition to ileostomy.



DISCUSSION

The creation of intestinal stomas for diversion of enteric contents is an important component of the surgical management of several disease processes. However, complications of stoma creation are seen frequently, despite extensive measures aimed at reducing them. Early complications (those seen less than one month postoperatively) are frequently technical in nature. These include, but are not limited to, peristomal skin irritation, improper stoma site selection, acute peristomal herniation and bowel obstruction, and vascular compromise, along with several others.² While the late complications are paracolostomy hernia (the most common complication of the colostomy), 27 per cent, retraction of ileostomy, 24 per cent, and intestinal obstruction of urostomy, 28 per cent.³ Postoperative small bowel obstruction secondary to adhesion formation may follow 10-15% of all intraabdominal operations.⁴ A less well-recognised cause of early postoperative bowel obstruction is the occurrence of postoperative intussusception.

Intussusception is defined as the invagination of a segment of the gastrointestinal tract into an adjacent one. In adults, intussusception is rare accounting for less than 0.1% of all adult hospital admissions and for only 5-16% of all intussusceptions.¹ An organic lesion is usually identifiable as a cause of adult intussusception in about 70-80% of cases. In contrast, more than 90% of the childhood intussusceptions are idiopathic.¹

Postoperative intussusception in adults may be related to a variety of predisposing factors, including suture lines, ostomy closure sites, adhesions, long intestinal tubes, bypassed intestinal segments, submucosal oedema, abnormal bowel motility, electrolyte imbalance, and chronic dilatation of the bowel.⁵

The diagnosis of post-operative intussusception can be difficult, and a high index of suspicion is necessary for its

early detection. The classic clinical triad of conventional intussusception consisting of abdominal pain, painful sausage-shaped mass and the "currant-jelly" stools is rarely present. In most post-operative patients, the abdominal pain is attributed to the surgical wound, and the most important symptoms are vomiting and abdominal distension. Bloody stools are unusual and a palpable abdominal mass is rare. Sonography, computed tomography, and oral barium contrast examination of the upper gastrointestinal tract with small bowel follow-through have been found to be helpful in the diagnosis of post-operative intussusception.⁶

In our case, the patient complained of abdominal pain postoperatively. An upper GI study revealed no abnormality. A CT done showed a "gut within a gut" appearance in the large gut and was due to intussusception of the ileostomy stump. We also highlight the importance of CT and barium enema under controlled conditions in the diagnosis of postoperative abdominal pain.

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