

Case Report

Intussusception due to caecal carcinoma in a young man: unusual cause of presentation a case report

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ABSTRACT

A young 26 year male patient admitted with colicky pain in right iliac fossa with well palpable tender lump. After radiological investigation lump was diagnosed as ileocaecal intussusception. Patient underwent laparoscopy which diagnosed as intussusception due to caecal carcinoma. Laparoscopy again proved to be useful diagnostic tool over imaging techniques in this case. Laparoscopic assisted surgery of right radical hemicolectomy done successfully.

Keywords: Intussusception, Caecal carcinoma, Appendicular lump, Laparoscopy- assisted surgery

INTRODUCTION

Intussusception is defined as the invagination of one segment of the gastrointestinal tract and its mesentery (intussusceptum) into the lumen of an adjacent distal segment of the gastrointestinal tract (intussusciens). Sliding within the bowel is propelled by intestinal peristalsis and may lead to intestinal obstruction and ischemia.

Adult intussusception is a rare condition which can occur in any site of gastrointestinal tract from stomach to rectum. It represents only about 5% of all intussusceptions¹ and causes 1-5% of all cases of intestinal obstructions.^{2,3} Intussusception accounts for 0.003–0.02% of all hospital admissions.⁴ The mean age for intussusception in adults is 50 years, and the male-to-female ratio is 1:1.3.⁵ The child to adult ratio is more than 20:1. The condition is found in less than 1 in 1300 abdominal operations and 1 in 100 patients operated for intestinal obstruction. Intussusception in adults occurs less frequently in the colon than in the small bowel. Mortality for adult intussusceptions increases from 8.7% for the benign lesions to 52.4% for the malignant variety.⁶

60-75% of large bowel intussusception are caused by malignant neoplasm. The most common malignant cause is primary adenocarcinoma and the most common nonmalignant cause is lipoma.⁷ Independent predictors of malignancy include: patients age, site of intussusception (more often colonic than enteric) and presence of anemia (hemoglobin less than 12 gm %).⁸

Benign or malignant neoplasms cause two thirds of these cases with a lead point; the remaining cases are caused by infections, postoperative adhesions, Crohn's granulomas, intestinal ulcers (Yersinia), and congenital abnormalities such as Meckel's diverticulum.⁷

CASE REPORT

A 26-year-old man with a family history of colon adenocarcinoma in a father and heavy smoker presented to our emergency department with a 2-month history of intermittent colicky abdominal pain accompanied by nausea and vomiting. Pain increased since last two days with fever and vomiting. Physical examination showed a palpable tender mass in the right lower quadrant of the abdomen without any signs of intestinal obstruction. Clinically mass was diagnosed as appendicular lump.

USG done on emergency basis showed ileocaecal mass with non inflammatory appendix within. Complete blood count had leucocytosis with neutrophilia. Computed tomography showed a 3-layered structure giving the characteristic target-shaped appearance in the ascending colon, highly suggestive for an ileocolic intussusception associated with right colic parietal thickening and an adjacent lymphadenopathy. It was showing large lymph nodes in the mesentery.

Patient was planned for laparoscopic exploration and eventually definitive surgery. Intra-operatively, we found an ileocolic intussusception without any intestinal dilation. Multiple large lymphadenopathies along the ileocaecal artery were observed. As we mobilized whole of ascending colon laparoscopically, there was large cauliflower growth coming out of the lumen of cecum invading serosa.

Laparoscopic assisted radical right hemicolectomy was performed. Primary extracorporeal anastomosis was performed using manual sutures. Macroscopic examination of the resected specimen revealed a tumor mass of the cecum invading serosa. The histological analysis identified a moderately differentiated tubular adenocarcinoma invading the serosa (T3) with permeation of the lymphatic or venous capillaries. Five lymphatic metastasis of 32 nodes removed was seen.

Postoperative course was uneventful and patient was discharged 5 days after surgery. Postoperative chest, abdomen, and pelvis CT scan were normal. Therefore, tumor is classified as stage III A (T3N1 M0). The patient was followed up with adjuvant chemotherapy.

DISCUSSION

Young adult large bowel intussusception due to colonic adenocarcinoma is unusual presentation. Right iliac fossa palpable tender mass usually diagnosed clinically as appendicular lump or abscess.

The sensitivities of the different radiological methods are abdominal ultrasounds (35%), upper gastrointestinal barium study (33%), abdominal computed tomography (58-100%), barium enema (73%), and colonoscopy (66%).⁹

Laparoscopy, although not an imaging study, is obviously an excellent evaluation tool in cases of intestinal obstruction. It allows for identification of the location, the nature of the lead point, and the presence of compromised bowel. It aids in the choice of an appropriate location for the incision that would minimize length.⁷ Laparoscopic operation may be applicable as a less-invasive method, but not in acute bowel obstruction with tense abdominal distension.

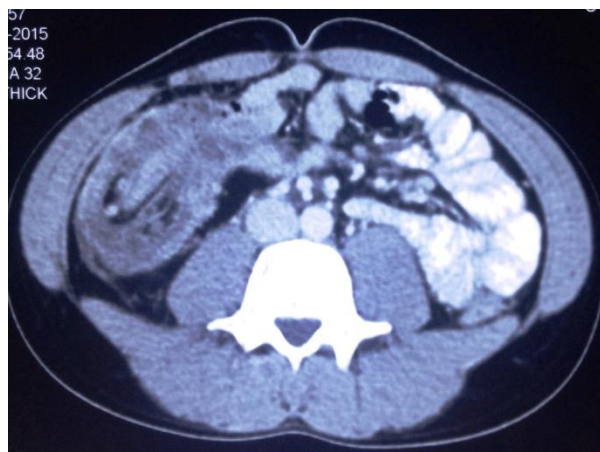


Figure 1: CT scan showing ileocaecal intussusception with minimal distension of proximal ileum.

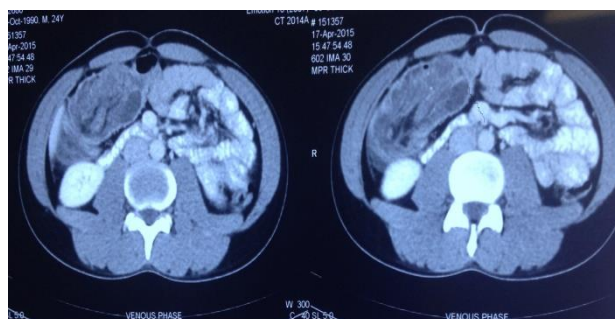


Figure 2: More CT plates showing ileocaecal intussusception with normal, appendix within.

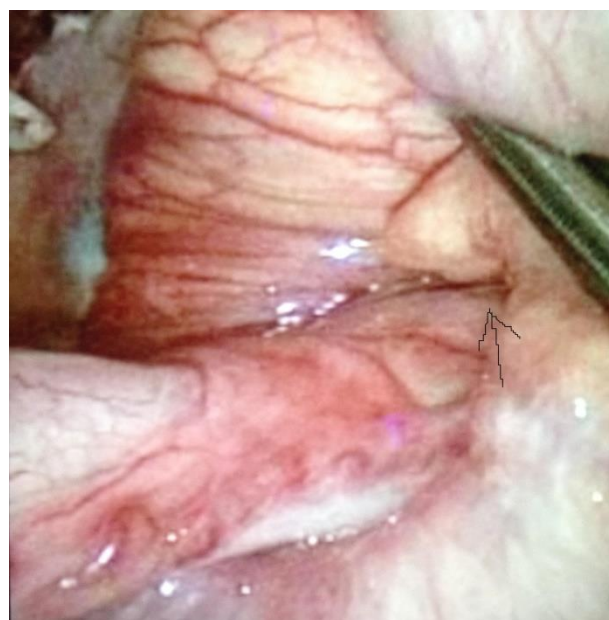


Figure 3: Laparoscopic reduction of intussusception, arrow indicating appendix and terminal ileum intussuscepting inside the caecum.



Figure 4: After laparoscopic reduction of intussusception caecal growth protruding out of the lumen seen clearly.



Figure 5: Intraoperative ileocaecal junction with malignancy of caecum after laparoscopic mobilisation of colon.



Figure 6: Gross open specimen showing caecal carcinoma.

CONCLUSION

Ileocolic intussusception rarely revealed a cancer in young adults. Because of the rarity of adult intussusception and the nonspecific symptoms and physical finding, and signs on imaging, preoperative diagnosis is difficult.

In adults, the treatment of intussusception is almost always surgical and requires resectional approach. Laparoscopic surgery has a special interest in the diagnosis and treatment in this pathology. Intussusception themselves have a good prognosis, but this depend on the primary disease causing intussusception.

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