

# A Rare Cause of Acute Abdomen in Adults: Adult Intussusception

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## ABSTRACT

Adult intussusception is rare, less common and differs from childhood intussusception in its presentation, aetiology and treatment. It is common in paediatrics of less than three years of age.<sup>1,2</sup> Unlike in paediatric population, most adult cases presented to emergency department with intestinal obstruction, and rarely, the actual diagnosis of intussusception is made during clinical setting. Top causes of adult intussusception include malignant or benign lesions, post-operative complications such as adhesions, Meckel diverticulum and bowel inflammatory disease. 8-20% of cases are idiopathic with no lead point lesion.<sup>3</sup> Preliminary radiograph may show signs of intestinal obstruction, but computed tomography (CT) is the gold standard imaging for intussusception. This is a case report of an adult intussusception in Hospital Tengku Ampuan Afzan, Kuantan which was not detected during clinical examination, but diagnosed by CT imaging.

### Keywords

intussusception, intestinal obstruction, computed tomography

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## INTRODUCTION

Intussusception which is a common occurrence in the paediatric group, is due to a primary cause or idiopathic. 5% of all intussusception occur in adults, whereby 1% of the cases lead to bowel obstruction.<sup>1</sup> In adult intussusception, it is normally due to structural lesion known as 'lead point', which can either be a benign or malignant lesion. A significant portion of these lead points are normally malignant neoplasms, accounting for 66% of colonic intussusceptions and 30% of cases in the small intestine. Adenocarcinoma is the most common malignant lead point in the colo-colic intussusception.<sup>2</sup> However, due to the rarity of adult intussusception, patients who presented as intestinal obstruction may be misdiagnosed by the presentation itself, albeit the cause is intussusception.

## CASE SUMMARY

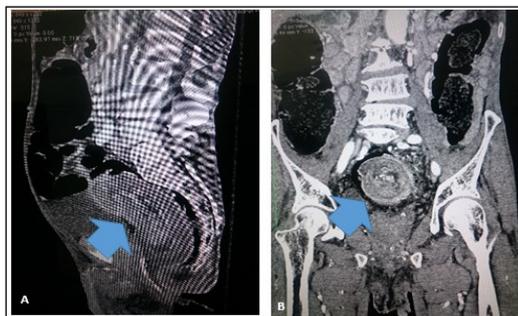
An 81 years old Malay man with underlying hypertension, presented to emergency department complained of

worsening abdominal pain and abdominal distension for the past 1 week associated with history of loose stool mixed with blood and mucus for 2 weeks. Upon clinical examination, he was a thin man who appeared lethargic but his vital signs were stable. The abdomen was mildly distended however soft with minimal tenderness at the left iliac fossa. Digital rectal examination (DRE) revealed large polypoidal lesion felt at the rectum, about 7cm from the anal verge. Plain abdominal radiograph (Figure 1) showed dilated ascending, transverse, descending and pelvic colon. There was also faecal loading in ascending, distal descending and pelvic colon. No pneumoperitoneum was detected. A suspicious soft tissue density was seen within the dilated rectum which was initially thought to be polypoidal lesion. No bowel oedema was seen in radiograph. Urgent contrast computed tomography (CT) (Figure 2A and 2B) was carried out and showed telescoping of sigmoid colon into the rectum, extending till the mid rectum. The affected bowel wall was oedematous but no actual mass was found. Sub-

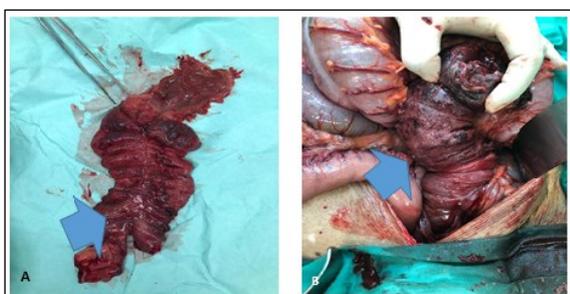
centimetre pelvic lymph nodes were present. No evidence of metastases to other intra-abdominal solid organs or bone metastases were seen. Pneumoperitoneum was observed. On exploratory laparotomy, sigmoid colon intussusception into rectum with ischemic segment of bowel were found (Figure 3A and 3B). Sessile polyp in the distal sigmoid colon was seen. Perforation was noted at the distal part of the sigmoid colon. Histopathology report confirmed the lead point was adenocarcinoma of the sigmoid colon. He made an uneventful recovery post-surgery and was discharged well.



**Figure 1:** Plain abdominal radiograph showing dilated ascending, transverse, descending and pelvic colon. No pneumoperitoneum



**Figure 2:** Contrast computed tomography shows telescoping of sigmoid colon into the rectum, extending till the mid rectum in sagittal and coronal plane (blue arrow)



**Figure 3:** Gross histology shows ischemic segment of involved bowel (blue arrow)

## DISCUSSION

Intussusception is an infrequent cause of bowel obstruction in adults compared to paediatric age group. It remains a rare condition in adults, representing 1-3% of bowel obstructions, and it is a different entity in adults than in children.<sup>1</sup> It is often difficult to diagnose with non-specific presentations and clinical findings. About 90% of intussusceptions in adults occur in the small or large bowel; the other 10% involve the stomach or surgically created stomas. Most of the colo-colic cases reported are caused by malignant neoplasms. Other causes in the colon have been described including adenomatous polyps, inflammatory bowel disease, mycobacterial infection, and surgical anastomoses. Presentation can be typical or atypical such as crampy abdominal pain, nausea, vomiting, constipation, diarrhoea and occasionally per rectal bleeding. Physical examination may reveal distended abdomen or guarded abdomen. Abdominal x-ray may show dilated bowel with presence of extraluminal air. Colonoscopy may reveal mass or inconclusive study due to obstruction. Contrast computed tomography (CT) is the modality of the choice in detecting intussusception and delineate the cause(s) of the intestinal obstruction.<sup>3,4</sup> Complications of the intussusception is also demonstrated in CT and aids the surgeon in terms of resectability.<sup>2,4</sup> Treatment usually require resection of the involved bowel segment.<sup>5</sup> Prognosis depends on its aetiology; benign lesion leads to good outcome and malignant lesion leads to poor outcome.

Though adult intussusception is a rare presentation, nonspecific abdominal pain, atypical clinical findings associated with bowel symptoms should be entertained in adult patient, as early diagnosis can release obstruction, prevent further ischemia of the bowel, and helps in early detection of malignancy.<sup>5</sup>

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