CASE REPORT

Adult Intussusception: A Case Series

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Abstract

Introduction: Adult intussusception is an infrequent cause of intestinal obstruction and differs from childhood intussusception in its presentation, etiology, and treatment. Almost 90% of adult intussusceptions are secondary to a pathological condition that serves as a lead point and most of them require surgical intervention.

Method: Computed tomography (CT) is the most sensitive diagnostic modality which distinguishes intussusceptions with and without a lead point. This paper presents the clinical presentation and etiopathogenesis of adult intussusception as demonstrated by CT.

Observation and results: Five cases of adult intussusception were evaluated and the various etiologies included an intestinal polyp, bowel wall leiomyoma, jejunal lipoma, calcified lymph and idiopathic causes.

Conclusion: Adult intussusception is a rare but challenging condition for the surgeon. Diagnosis is usually missed because of nonspecific and subacute symptoms. With the advent of MDCT in imaging of acute abdominal emergency, the detection of intussusception has increased.

Keywords: Idiopathic, Intussusception, Large bowel, Leiomyoma, Lipoma.

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Introduction

Intussusception is the invagination of a bowel loop with its mesenteric fold (intussusceptum) into the lumen of a contiguous portion of bowel (intussuscipiens), as a result of peristalsis. Adult intussusception is rare, accounting for less than 5% of all cases of intussusception and 1% of all bowel obstructions.[1] The growing use of computed tomography (CT) for abdominal imaging has led to an increased detection of intussusception with various causes.

Case Report

The clinical presentation of adult intussusception varies considerably. In this case report, we present five cases of adult patients who presented with acute pain abdomen to the emergency department, were imaged using 16-slice multiple detector computed tomography (MDCT), and were followed up with operative findings, which were then documented and correlated (Figs 1 to 5).

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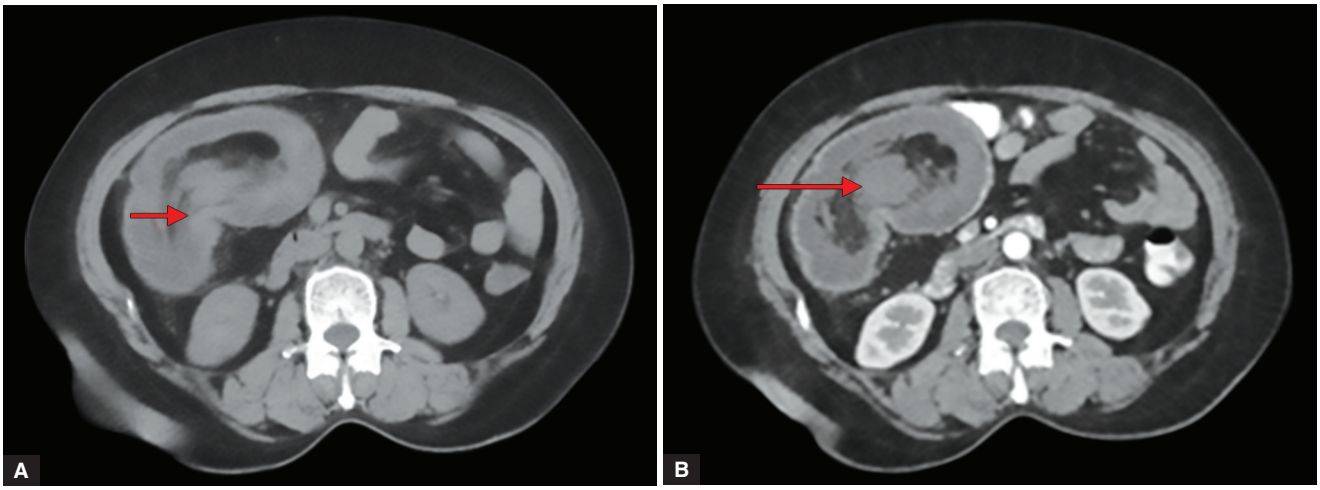
Discussion

Adult intussusception is unusual, and its causes are varied. Almost 90% of adult intussusceptions are secondary to a pathological



Figs 1A and B: CT (A—plain) and (B—contrast) shows a long-segment intussusception in the distal ileum (short arrow), ileocecal junction, cecum, and proximal part of transverse colon secondary to an enhancing intraluminal polypoidal lesion (long arrow). Case 1: A 58-year-old female presented with acute pain abdomen

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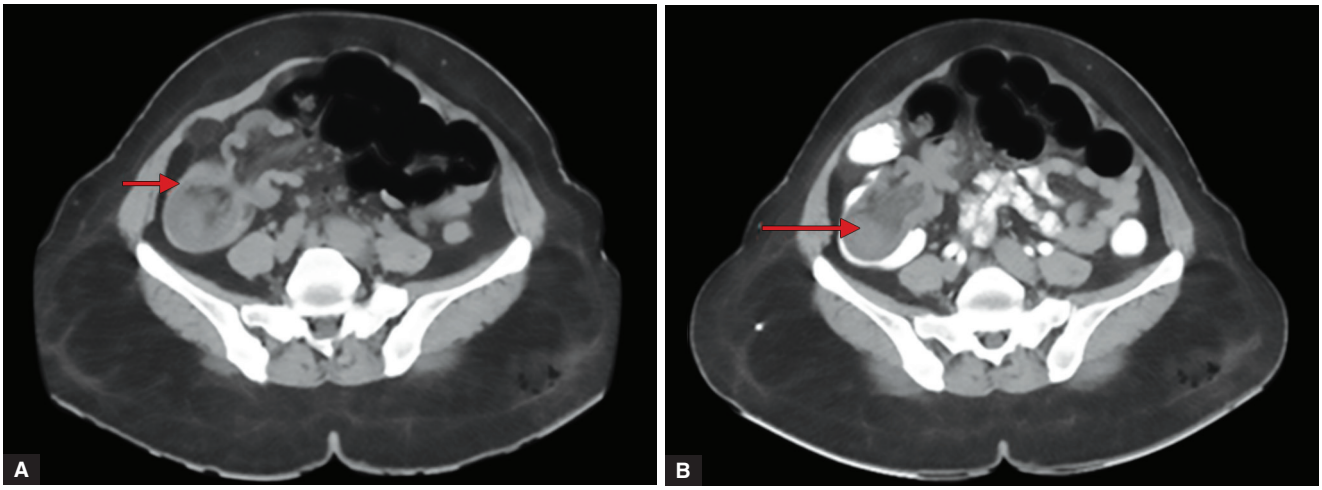
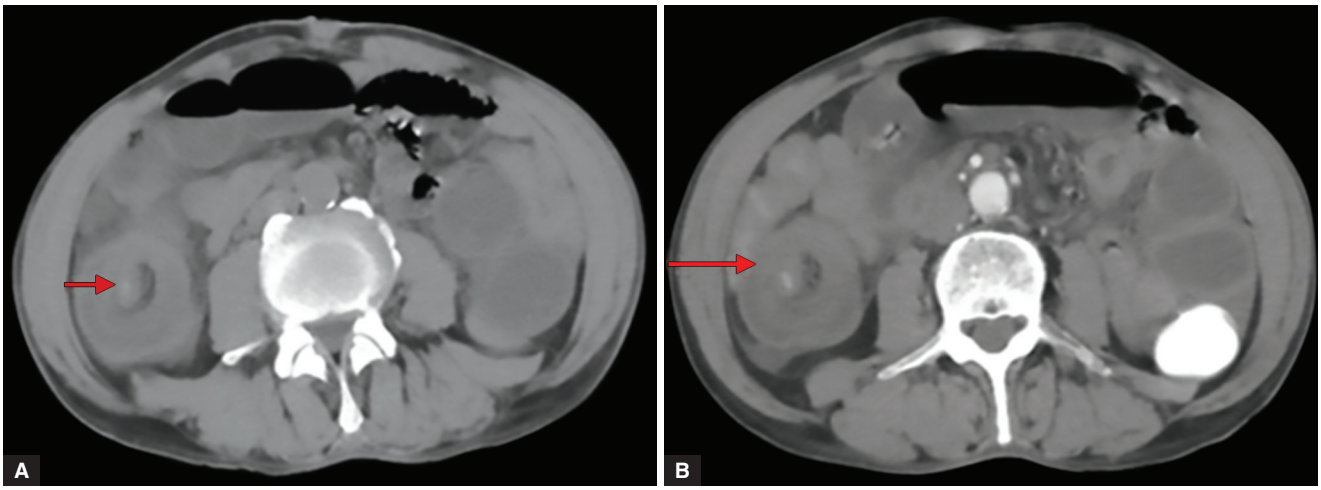
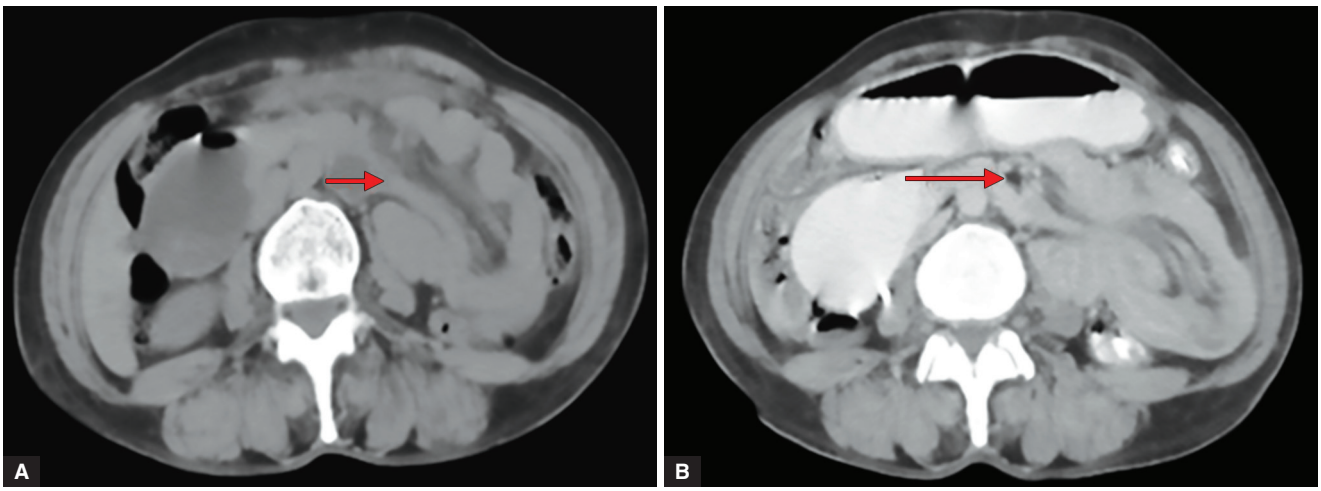


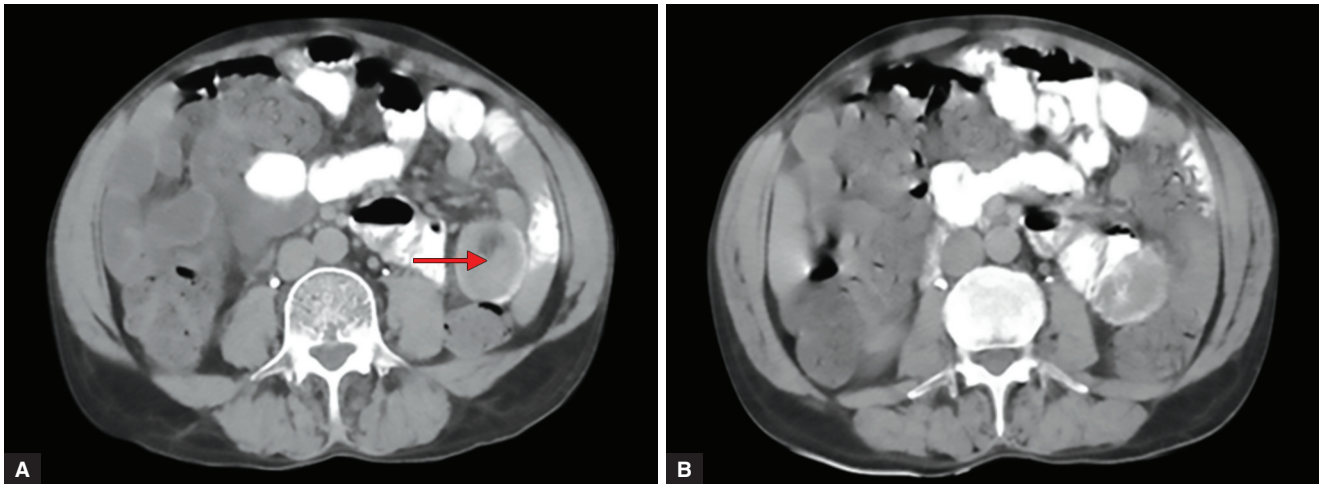
Figs 2A and B: CT (A—plain) and (B—contrast) shows a well-defined lesion giving target appearance (short arrow) involving the distal ileum and colon. A well-defined lesion of soft tissue attenuation (long arrow) later proven to be leiomyoma was found to be the cause of intussusception. Case 2: A 37-year-old female presented with acute pain abdomen



Figs 3A and B: CT (A—plain) and (B—contrast) shows evidence of a concentric doughnut-shaped lesion (long arrow) involving the distal ileum and ascending colon with a dense intra luminal focus as the contributory cause, which was later found to be a calcified lymph node (short arrow). Case 3: A 50-year-old male patient presented with acute abdomen



Figs 4A and B: CT (A—plain) and (B—contrast) shows a telescoping of the fourth part of the duodenum and mesentery into the proximal jejunum (short arrow). A lesion of fatty attenuation (long arrow) which formed the leading point attributed to the cause. Case 4: A 50-year-old female presented with pain abdomen



Figs 5A and B: CT (A) and (B) shows telescoping of proximal jejunal loop into distal jejunal loops (arrow) with no evidence of dilatation of proximal bowel loops. The cause of intussusception remained idiopathic. Case 5: A 62-year-old male patient presented with acute abdomen

condition that serves as a lead point and most of them require surgical intervention.[2–4] In adults, the exact mechanism of invagination is unknown. It is believed that any lesion in the bowel wall or within the lumen that alters normal peristaltic activity is able to initiate the invagination, but this theory is not valid for idiopathic cases without an organic cause. Abdominal MDCT has been shown to be the imaging modality of choice for the detection and assessment of adult bowel intussusception, with a reported accuracy of 58–100%.[5] In our case series, a retrospective review of clinical records of five cases of adult intussusception is demonstrated on CT images. The above patients, who presented with acute abdomen, were imaged with CT. Etiological factors included intestinal polyp, intra bowel leiomyoma, jejunal lipoma, lymph nodes, as well as an idiopathic cause. CT findings were documented and then correlated with per operative findings. Though a small number of cases, our series study shows slight female preponderance and predominance of entero-enteric type.

Conclusion

Adult intussusception is a rare but challenging condition for the surgeon. Diagnosis is usually missed because of nonspecific and subacute symptoms. With the advent of MDCT in imaging of acute abdominal emergency, the detection of intussusception has increased. Adult intussusception is frequently caused by an underlying disease with almost 90% of the cases having a demonstrable cause. Hence, the role of a radiologist is not just to recognize the intussusception, but also to define its location, underlying pathology, and associated complications, if any.

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