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Community teaching hospital surgical experience with adult intussusception: Study of nine cases and literature review

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ABSTRACT

INTRODUCTION: Although more commonly thought of as a surgical problem affecting children, surgeons evaluating the adult acute abdomen should remain vigilante in diagnosing intussusception. In this case series, we reviewed 6 years of medical records at a community teaching hospital in order to analyze the etiology, presentation, and management of nine cases of adult intussusception.

PRESENTATION OF CASES: Most of the patients in our series shared symptoms of nausea, vomiting, and abdominal pain. Computed tomography scan was crucial in distinguishing adult intussusception from other causes of acute abdomen. Eight patients underwent operative exploration, five of whom underwent bowel resection. One patient's symptoms resolved with no surgical intervention. All nine patients had excellent outcomes.

DISCUSSION: Although detailed history and physical examination are essential in all cases of acute abdomen, CT scan findings of "target" signs are pathognomonic of intussusception. Laparoscopy should be strongly considered in select cases. Current literature suggests that reduction may be performed before resection if the lesion meets certain stringent parameters. The primary concern with regards to reduction before resection is potential embolization of malignant cells. Colonic intussusception is almost always treated with resection without reduction, while small intestinal intussusception could be treated by reduction before resection, if the small bowel lead points are less likely to be malignant.

CONCLUSION: Intussusception is a rare but serious etiology of the acute abdomen in adults. Each case should be evaluated independently according to the specific type of lead-point lesion. Excellent outcomes may be anticipated with prompt diagnosis and surgical treatment.

1. Introduction

Intussusception is a process in which a segment of bowel telescopes into an adjoining segment, leading to bowel obstruction (Fig. 1). It is the leading cause of intestinal obstruction in children, but in adults, it represents only 1% of cases [1,2]. Intussusception can be attributed to a number of triggers or lead points. The etiology in children tends to be idiopathic or viral in origin, while adult cases are more generally linked to a distinct lesion in the intestinal wall that alters normal peristalsis [1,3]. About 65% of adult cases are secondary to neoplasm [4]. The remainder may be benign or congenital [4]. Cases are described as enteric (affecting only the small bowel), colonic (affecting only the large bowel), ileo-colic (small bowel telescoping into large bowel), or ileo-cecal (small bowel telescoping into cecum) [2,4,5].

1.1. Methods

This retrospective study was performed at a community teaching hospital by reviewing all symptomatic cases of adult intussusception between 2008 and 2014. The findings of nine patients between the ages of 20 and 85 years old were analyzed. In this series, four patients were males and five were females. Presenting symptoms, etiology of intussusception, course of treatment, and outcomes of all cases were reviewed. Diagnosis was corroborated by CT scan in all cases. The spectrum of treatment included non-operative management, laparoscopic assisted surgery, and open surgery with or without bowel resection (Figs. 2–7).

1.2. Results

Abdominal pain was a common symptom, present in seven of nine cases. Seven of nine patients also complained of nausea. Abdominal pain and nausea occurred together in five cases. One third of our cases (3/9) involved intussusception of the colon while the other two thirds (6/9) involved segments of small bowel. Eight out of nine patients were taken to surgery 89% (8/9), with only 62.5%

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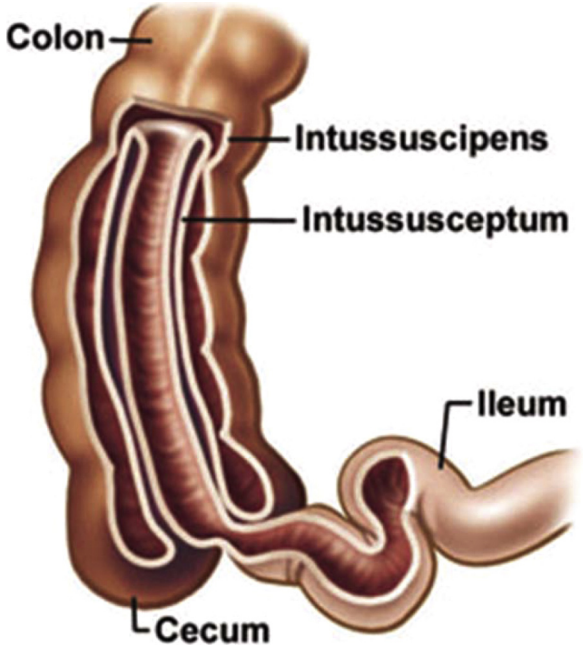

Fig. 1. Ileocecal anatomy showing intussusception.
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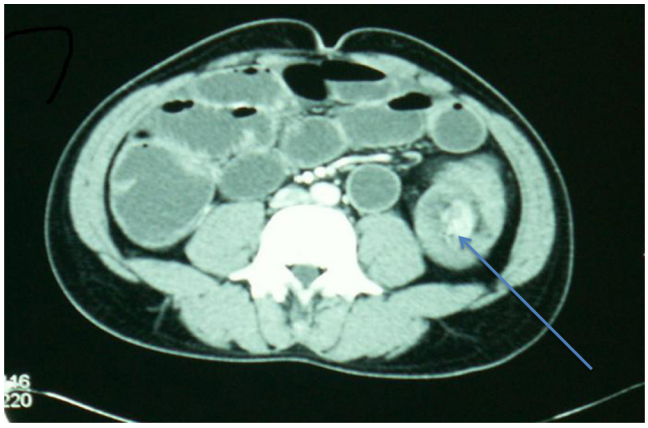

Fig. 2. Classic "target" sign indicating intussusception from case #1.

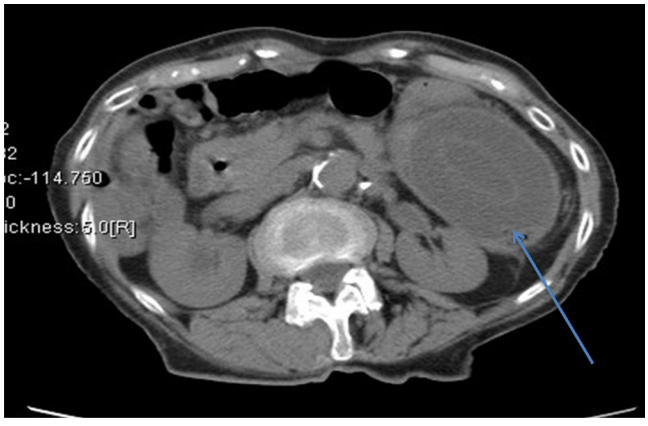

Fig. 3. Abdominal CT indicating intussusception from case #2.

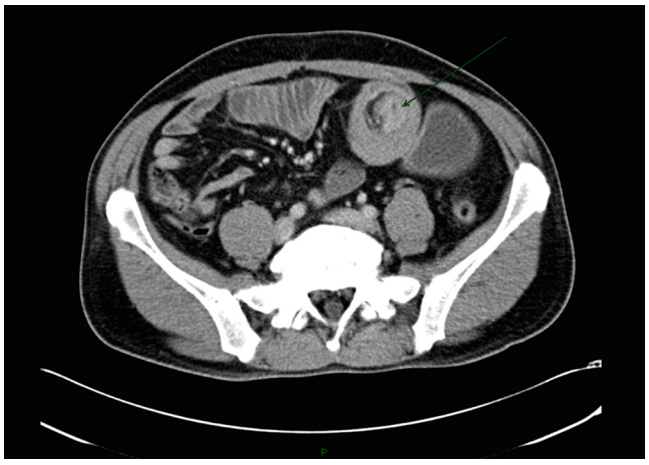

Fig. 4. Axial CT showing intussusception from case #9.

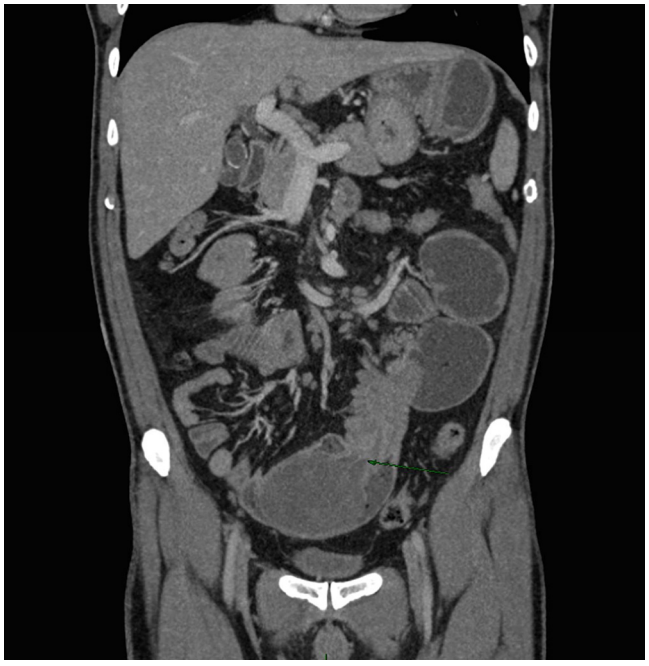

Fig. 5. Coronal CT showing intussusception from case #9.

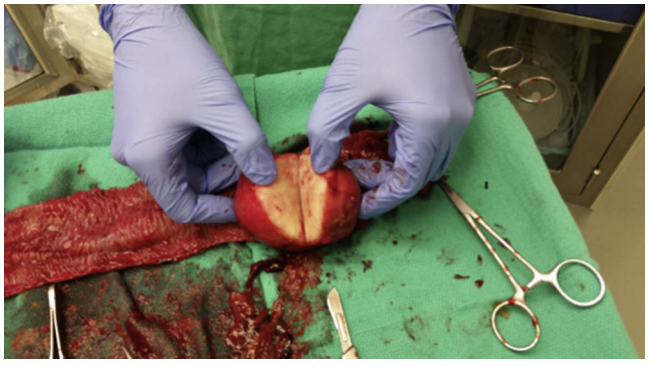

Fig. 6. Gross morphology of the spindle cell tumor from case #9.