

Ileocolic Intussusception Secondary to a Neuroendocrine Tumor in an Adult Alyssa Crispino PA-S, Brennan Bowker MHS, PA-C, CPAAPA

Quinnipiac University Graduate Physician Assistant Program

Introduction

- · It often occurs in areas where a proximal mobile region is adjacent to a distal fixed region.¹
- Incidence of adult intussusception has increased from 5% to as much as 23% of all intussusception diagnoses.^{2,3}
- Ileocolic intussusception comprises less than 5% of adult intussusceptions.⁴
- · Adult intussusception is rarely idiopathic with over 70% of cases caused by tumors and polyps.⁵
- Approximately 50% of lead point lesions in adult patients are malignant.⁵
- Adults often present with vague symptoms, such as chronic abdominal pain, nausea, and vomiting, rather than the classic triad of abdominal pain, palpable mass, and currant jelly stool.^{4,6-8}
- Contrast-enhanced computed tomography (CT) scans are the preferred diagnostic modality, with characteristics such as a reniform-pattern, shorter length, larger diameter, hyperdense appearance, and non-round or oval shaped masses indicative of malignant lead points.^{5,9}
- Complications, such as ischemia, necrosis, perforation, edema, or hemorrhage, may arise if untreated.¹⁰

Gallstone Ileus

Ventral Hernia

Crohn's Disease

Lymphoma

History

- 62 -year-old male complaining of periumbilical abdominal pain and anorexia for the past month with a 12lb weight loss over the past 2 weeks. He endorses worsening with food intake.
- Past medical history: hypertension, chronic kidney disease, iron deficiency anemia, chronic alcohol use
- Medications: amlodipine 10 mg PO daily, losartan 100 mg PO daily, metoprolol tartrate 25 mg PO BID
- NKDA
- No past surgical history
- Family History: Pancreatic cancer (father)
- Social History: tobacco and marijuana use, 8-9 alcoholic beverages daily
- Review of Systems: Denies fever, chills, chest pain, shortness of breath, nausea, vomiting, hematochezia, constipation, diarrhea, back pain, dysuria, hematuria, or adenopathy

Differential Diagnosis included in Table 1

Case Description

Physical Exam

- Vitals:
 - BP 162/91 mmHg
 - HR 61 bpm
 - RR 18 br/min
 - T 37.1 °C
 - SpO₂ 100% on room air
- General: AOx4, well-appearing, no acute distress
- Cardiac: regular rate and rhythm, S1 and S2 appreciated without murmurs, rubs, or gallops, 2+ radial and dorsalis pedis pulses bilaterally
- · Pulmonary: symmetrical chest expansion, nonlabored vesicular lung sounds bilaterally without adventitious lung sounds
- GI: atraumatic and flat, soft, non-distended, nontender to palpation in all 4 quadrants, no masses appreciated
- GU: no costovertebral angle tenderness

Diagnostic Results

- Laboratory Analysis: Hgb 11.9 g/dL, Hct 37.4%, Cr 1.24 mg/dL, HCO3 19 mmol/L, Lactic acid 2.1 mmol/L, ALT 9 U/L
- Urinalysis: trace proteins and ketones
- Abdominal CT: "Ileocolic intussusception with a 3.4 x 3.6 cm enhancing lesion at the leading edge of the intussusceptum"
- Figure 1 shows results of abdominal CT scan.
- Figure 2 shows the histopathology of the ileal mass.

Fig 2. Histopathology of Ileal Mass Biopsy



Fig 1. Coronal and Axial Abdominal CT Scan



Table 1. Differential Diagnosis



Discussion

Case Outcomes

- Segmental distal ileal resection was performed.
- Final diagnosis of ileal mass was a well-differentiated neuroendocrine tumor G1.
- Patient had an uncomplicated recovery and was discharged on postoperative day 3.
- Patient transitioned to outpatient care for continued follow up and management.

Recommended Treatment for Adult Intussusception

- Due to the high rate of neoplastic causes, surgical resection of the affected region remains the mainstay of treatment. 1, 4-7
- · Decompression increases the potential for further spread of malignancy but may be used in some cases to reduce the length of unaffected bowel resected.^{4,7}

Conclusion

- · Intussusception is rare among adults and often has a vague presentation.
- · Lead points are often pathological in adults.
- A CT scan is the preferred diagnostic tool and can display characteristics of malignancy.
- · Surgical resection remains the mainstay of treatment.

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