An Unusual Presentation of Small Bowel Volvulus

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PATIENT HISTORY

CHIEF COMPLAINT:

- 79-year-old Hispanic female
- Unrelenting epigastric pain radiating to the back x 2 days
- Onset: Pain began shortly after drinking a soda; First episode
- Severity: Pain is rated as 10/10 and no aggravating or alleviating factors
- Pertinent Positives: chills, nausea, vomiting
- Pertinent Negatives: fevers, chest pain, dyspnea, obstipation, constipation, syncope, anorexia, post-prandial pain, hematochezia, melena, hematuria, hematemesis, dysuria

PAST MEDICAL HISTORY:

- Hypertension, dyslipidemia
- Medications include captopril
- No surgeries or hospitalizations

EXAMINATION

- WD, WN female in mild distress

VITALS:

- BP: 168/87 mmHg, P: 76, R: 16, T: 97.0° F

GI Exam:

- Bowel sounds normoactive all 4 quads
- Abdomen soft, non-distended
- Tender to palpation diffusely
- No rebound tenderness, rigidity or guarding

DIAGNOSTIC WORKUP

LABS:

- CBC: WBC: 9.8 cells/mm^3
- Serum Lactate: 3.02 mmol/L
- Labs otherwise WNL

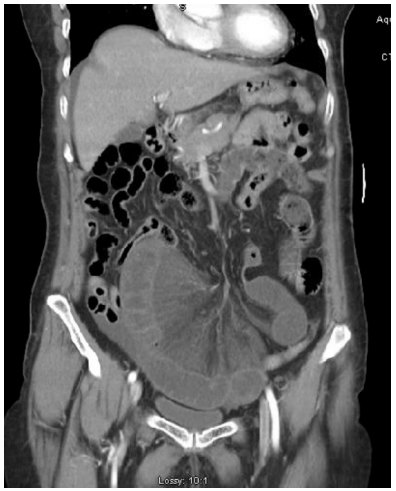

Figure 1: CT Abdomen & Pelvis Coronal View

RADIOLOGY

- CT of Abdomen and Pelvis with Contrast: Distended distal small bowel loops
- Thickened and rotated mesentery
- Superior mesenteric vein encircling the superior mesenteric artery in a clockwise fashion known as a “whirl sign”

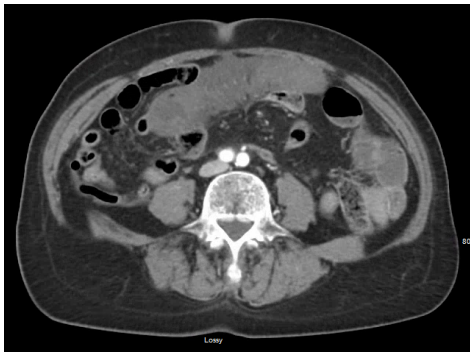

Figure 2: CT Abdomen & Pelvis Axial View

DIFFERENTIAL DIAGNOSIS

A. Adult Intussusception
B. Acute Mesenteric Ischemia
C. Paralytic Ileus
D. Small Bowel Obstruction Secondary to Volvulus

Commentary:
Acute mesenteric ischemia, adult intussusception, and a paralytic ileus were ruled out by the CT scan. Imaging did not reveal an arterial occlusion or thrombus consistent with acute mesenteric ischemia; no intestinal telescoping of intussusception; and no colonic dilatation that would be suspicious of a paralytic ileus.

Outcome:
The patient underwent an resection of necrotic bowel after devolvulation and viable bowel was anastomosed. She was discharged after 5 days and follow up was unremarkable.

DISCUSSION

- Volvulus is a partial or complete luminal obstruction with a variable degree of vascular obstruction, caused by axial twisting of the GI tract about the mesentery
- Can be primary or secondary
- Primary occurs mainly in pediatric and young adult population
- Secondary common among elderly, precipitated by postop adhesions
- Annual incidence is 1.7 to 5.7 cases per 100,000 persons[1]
- Clinical presentation is nonspecific
- Progresses to bowel necrosis if not identified early on (peritoneal signs)
- CT of abdomen and pelvis are diagnostic study of choice
- Emergent surgical intervention due to risk of ischemia
- May be treated with simple devolvulation or in the presence of necrosis, resection of the affected segment is indicated

CONCLUSION

- Volvulus is an important differential to consider in the presentation of severe, acute abdominal pain
- Early diagnosis and intervention is key to a better outcome

REFERENCES

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2. Emanuwa OF, Ayantunde AA, Davies TW. Midgut malrotation first presenting as acute bowel obstruction in adulthood: a case report and literature review. *World J Emerg Surg*. 2011; 6(22).

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