

SIGMOID VOLVULUS

- Sigmoid volvulus accounts for about 90 percent of all volvulus seen in the United States, incidence depends on country and age related.
- It usually occurs in older or institutionalized patients and in patients with a variety of neurological disorders.
- A redundant sigmoid colon with a narrow-based mesocolon is the factor necessary for sigmoid volvulus.
- Colon twists on its own mesenteric axis → venous congestion and infarction → Gangrene
- Arterial supply comprised → Ischemia

Diagnosis

Presentation:

- Abdominal pain, cramping, distention, and obstipation.
- History of previous episodes of abdominal pain and distention.
- ↑ WBC, ↑ fever, or peritoneal irritation on physical examination suggests the presence of gangrenous bowel.

X-Rays

- Plain abdominal radiographs – cornerstone of the diagnosis
 - Inflated sigmoid appears as an inverted U-shaped, sausage-like loop (coffee-bean sign) with dense line running downward to point of torsion
- Water-soluble contrast enema may be diagnostic but should not be performed on patients with suspected gangrene - “bird's beak” deformity

Sigmoidoscopy – diagnostic and treatment.

Treatment –

NPO, Naso-gastric tube, IV fluids, Foley, antibiotics for ischemic bowel

Patient without suspected gangrenous bowel:

- Rigid (flexible for high volvulus) sigmoidoscopy with soft rectal tube insertion through sigmoidoscope past the point of volvulus,
- leave the tube in place for decompression (success rate 70-90%)
- After successful reduction: stabilize, bowel prep, elective sigmoid resection (recurrence rate at least 40-50% without resection)
- Unsuccessful detorsion, bloody discharge, or evidence of mucosal ischemia indicates strangulation or gangrene.

Patients with suspected ischemic/gangrenous bowel:

- No reduction, but emergent laparotomy, sigmoid colon resection, colostomy and Hartmann pouch.
- **Mortality**
 - 8 % -- elective surgery
 - 28 % -- emergent surgery

Sergey Khaitov, M.D.