48 year-old male presents to the ER with abdominal distention and pain.

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Sigmoid volvulus
Dilated colonic loops with multiple air-fluid levels demonstrated on upright radiograph
Relative paucity of rectal gas, suspicious for distal large bowel obstruction
Proximal to transition point, dilated colonic loops with multiple air-fluid levels
Transition point going into the volvulus
Aka colonic beaking
Classic “whirl” sign of the colon and mesentery
Best visualized on coronal reformatted images
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Distally, decompressed rectum
Sigmoid volvulus with mechanical large bowel obstruction

Torsion and twisting of sigmoid colon around its mesenteric axis with resultant obstruction.

Imaging:
- Coronal reformatted CT is especially useful in diagnosis, as demonstrated in this case.
- Signs: inverted “U”, “whirl” sign, colonic beaking.

Epidemiology:
- 3rd most common cause of colonic obstruction.
- 1-2% of intestinal obstructions in the US.
- Increased incidence in elderly men, and residents of nursing homes or mental hospitals (more constipation and obtundation in these populations).
- Frequent comorbid psychiatric disease.
Sigmoid volvulus with mechanical large bowel obstruction

Presentation:
• Acute or insidious onset abdominal pain, vomiting, distention, and obstipation.
• Complications:
  – Closed loop obstruction with strangulation, ischemia, necrosis, perforation. Poor prognosis. Uncomplicated cases have a good prognosis.

Treatment:
• Initial: sigmoidoscopic decompression of obstruction, usually with stabilization via rectal tube insertion.
• Sometimes followed by surgical resection of sigmoid colon.
  – 40-50% recurrence after nonoperative tx.
  – 3% recurrence after operative tx.
  – Complicated cases are a surgical emergency.


4. Statdx.com