Massive Colomegaly Due to Recurrent Sigmoid Volvulus

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An obese 69-year-old debilitated male living in a nursing home as a result of a cerebrovascular accident 14 years ago, without previous abdominal surgery, presented with altered mental status and increasing abdominal girth. CT of the abdomen showed the colon was dilated without signs of obstruction or perforation. Conservative treatment was initiated, but due to the patient’s impressive colonic dilation on CT scan and worsening respiratory failure, he was taken to the operating room for an exploratory laparotomy. A serial exploration of the abdomen was performed and massively dilated loops of colon erupted from the abdomen. It was clear that patient’s abdominal pain and increasing abdominal girth was due to recurrent sigmoid volvulus with progressive proximal colonic obstruction over a significant period of time. Upon running the bowel, the cecum and transverse colon were also massively dilated and it was likely that the cecum had been undergoing intermittent volvulus as well. The colon was massively distended and therefore we performed a subtotal colectomy with end ileostomy. The patient tolerated the surgery quite well, with immediate improvement in his respiratory symptoms. He was extubated on postoperative day #1, advanced to a regular diet, and discharged to an acute rehabilitation facility. The removed colon specimen was 27 cm in width, and weighed 34 pounds.

Fig 1. The vermiform appendix is shown in the surgeon’s hand above, documenting the sheer size of the specimen. The largest colon on record is housed at the Mütter Museum at the College of Physicians of Philadelphia, with a 27 inch width and weighing 45 lbs, belonging to an adult patient with Hirschsprung’s Disease [4].

Volvulus of the sigmoid colon accounts for 10-30% of acute large bowel obstruction cases, and is more common in Africa and Asia. In the United States, it is frequently associated with chronic illness and institutionalization. A redundant sigmoid colon is the most important risk factor in patients developing this condition. Acute colonic obstruction due to sigmoid volvulus can cause a closed-loop obstruction leading to bowel gangrene and toxic shock, with a high associated mortality if left untreated.

As our Image of the issue illustrates, chronic sigmoid volvulus can lead to colomegaly and profound abdominal distension, which, like acute colonic obstruction, can become life threatening if left untreated.

References