

## CLINICAL IMAGES

## Cecal volvulus

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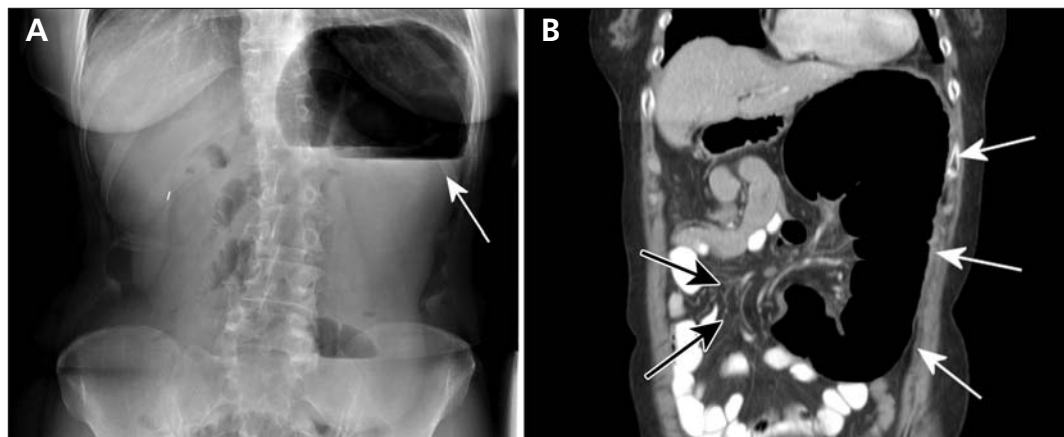
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**Figure 1:** (A) Upright abdominal radiograph showing a distended structure in the left upper quadrant with a visible air–fluid level (arrow). (B) Coronal computed tomography of the abdomen showing a dilated cecum (white arrows), with beaking and swirling of mesenteric vessels (black arrows) at its transition to a collapsed colon.

**A**n otherwise healthy 72-year-old woman with no history of abdominal surgery presented to the emergency department with intermittent pain in her right lower quadrant, abdominal distension and decreased passage of flatus that had lasted for 12 hours. She had no vomiting. A rectal examination showed stool but no blood. The results of routine blood tests were normal.

Radiography of the abdomen showed a distended structure in the left upper quadrant with an air–fluid level (Figure 1A). Computed tomography (CT) showed that the patient’s cecum was dilated, with beaking and swirling of mesenteric blood vessels, transitioning to a collapsed colon (Figure 1B). Laparotomy confirmed a distended, freely floating cecum that had twisted around its mesenteric axis. A right hemicolectomy was performed, and the patient recovered uneventfully.

Cecal volvulus accounts for about 1% of intestinal obstructions and 10%–40% of cases of colonic volvulus.<sup>1,2</sup> The second most common type of colonic volvulus (after sigmoid volvulus), it is associated with a lack of normal retroperitoneal attachments of the right colon. Risk factors include adhesions, malrotation, colonic distension or upward displacement of the cecum.<sup>2</sup> Presenting signs and symptoms may be acute or insidious, including

nonspecific abdominal pain, distension, nausea, vomiting and constipation, the intensity of which depend on the degree of obstruction and ischemia.<sup>3</sup>

Characteristic findings on radiography include a dilated and displaced haustral bowel loop, with a paucity of gas in the distal colon (differentiating cecal from sigmoid volvulus).<sup>4</sup> However, findings on radiography are often not diagnostic; CT is the definitive study for confirming the distended cecum and associated “whirl sign” of twisted mesenteric vessels and fat specific to the diagnosis.<sup>1</sup>

Conservative management is not recommended because of the high risk of ischemia, and surgical detorsion alone carries a high rate of recurrence (20%–75%).<sup>3</sup> Retrospective case series have shown the lowest morbidity and recurrence with surgical cecal resection, as opposed to alternative procedures such as cecopexy and cecostomy.<sup>2</sup>

## References

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