

Coffee bean sign, beak-shaped transition point, and endoscopic whirl sign of huge sigmoid volvulus in intestinal neuronal dysplasia

Akira Hokama¹, Souhei Tabata², Teruhisa Tanaka¹,
Kunikazu Hoshino², Shuichi Maruwaka², Jiro Fujita²

¹ Department of Endoscopy, Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan

² Department of Infectious, Respiratory, and Digestive Medicine, Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan

A 27-year-old man presented with a 6-year history of chronic abdominal distension and constipation. Vital signs were stable and abdominal examination revealed generalized distension and nontenderness with decreased bowel sounds. Plain spine radiography showed the dilated loop of sigmoid colon with an inverted U shape and

an air-fluid level, suggesting sigmoid volvulus (SV) (FIGURE 1A). The abdominal computed tomography (CT) scout view confirmed a huge coffee bean sign¹ of SV extending into the subphrenic region (FIGURE 1B). The CT scan showed the steel pan sign² of SV and a beak-shaped transition point, which was the stenotic point due to a fusiform tapering

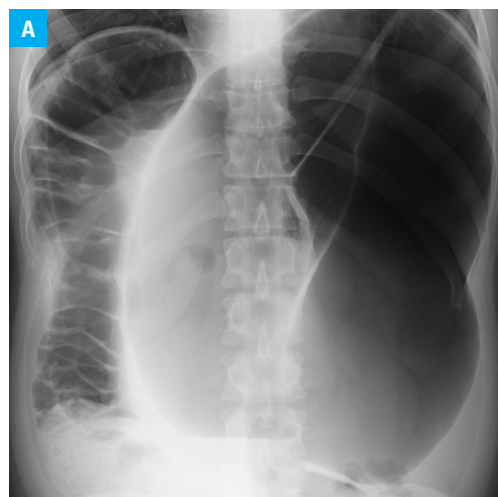


FIGURE 1 **A** – abdominal plain radiography showing the dilated loop of sigmoid colon with an inverted U shape and an air-fluid level; **B** – abdominal computed tomography scout view revealing a huge coffee bean sign of sigmoid volvulus extending into the subphrenic region. Apposition of the medial walls of the ascending and descending sigmoid loops form the central cleft of the coffee bean appearance and the lateral walls form the outer walls of the bean¹

Correspondence to:
Akira Hokama, MD, PhD,
Department of Endoscopy,
Graduate School of Medicine,
University of the Ryukyus, 207 Uehara,
Nishihara, Okinawa 903-0215,
Japan, phone: +81 98 895 1144,
email: hokama-a@med.u-ryukyu.ac.jp
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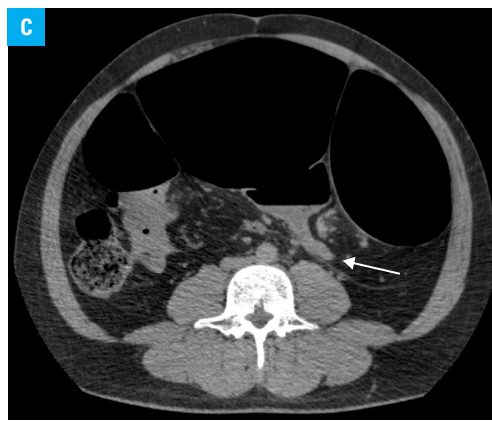


FIGURE 1 **C** – an abdominal computed tomography scan showing the steel pan sign of sigmoid volvulus and a beak-shaped transition point (arrow). The arrangement of haustral folds in a circular pattern resembles the Trinidadian percussion instrument known as the steel pan.² **D** – colonoscopy disclosing a whirl-like appearance at the luminal narrowing twisted due to torsion; **E** – colonoscopy showing the large “room” of the dilated sigmoid colon

of the bowel loop (FIGURE 1C). Subsequent endoscopy disclosed a whirl-like appearance at the luminal narrowing twisted due to torsion (FIGURE 1D). The scope was then inserted through this point into the dilated sigmoid colon (FIGURE 1E) and decompressed the lumen. After that, frequent colonoscopic decompression and detorsion were needed for recurrent refractory SV. The patient eventually underwent elective colectomy and ileorectal anastomosis. The diagnosis of intestinal neuronal dysplasia was made after pathologic examination. Postoperative course was uneventful and the patient reported a favorable improvement in his intestinal function and quality of life.

Sigmoid volvulus is a common cause of colonic obstruction and a potentially life-threatening condition. It was described in a papyrus from ancient Egypt, and later Hippocrates advocated the treatment.³ Predisposing factors include congenital or acquired anatomical variations, such as a long, redundant sigmoid colon and megacolon, previous abdominal surgery, chronic constipation, and neurologic disease.³ Various names have been given to its radiological appearance.¹⁻⁵ Although plain radiographic features seem to be of diagnostic value, CT scan signs can be useful in identifying the etiology and disclosing ischemic change. Conservative treatment by endoscopic decompression is acceptable and surgery may be required for emergencies including infarction and perforation, and refractory SV, as in this case.^{3,4}

ARTICLE INFORMATION

CONFLICT OF INTEREST None declared.

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