



## Transverse colon volvulus

Abo-Alhassan Fawaz, MD<sup>a,\*</sup>, Vadot Valentin, MD<sup>b</sup>, Latrille Antoine, MD<sup>a</sup>,  
Papet Lauranne, MD<sup>a</sup>, Facy Olivier, MD, PHD<sup>a</sup>

<sup>a</sup> Department of Digestive Surgery, University Hospital of Dijon, 14 Rue Paul Gaffarel, 21000 Dijon, France

<sup>b</sup> Department of Radiology, University Hospital of Dijon, 14 Rue Paul Gaffarel, 21000 Dijon, France

### ARTICLE INFO

#### Article history:

Received 13 May 2022

Accepted 14 May 2022

Available online 25 May 2022

A 59-year-old psychiatric patient presented to the emergency department with abdominal pain especially in the right hypochondriac region, abdominal distension, and vomiting. He has no other medical or surgical history. Abdominal examination reveals a tympanic abdomen especially on the right side. Plain radiograph and a contrast-enhanced computed tomographic (CT) scan were performed subsequently (Fig 1).

Question: What is the diagnosis made by contrast-enhanced CT scan?

- A. Transverse colon volvulus
- B. Acute colonic pseudo-obstruction (ACPO)
- C. Acute cholecystitis
- D. Sigmoid volvulus

Answer: A Transverse colon volvulus.

In the plain radiograph, we can identify the coffee bean sign. Typically, it is located in the left side in sigmoid volvulus. However, in this case, it is in the right hypochondriac region. Abdominal CT identifies the transverse colon volvulus, with the cecum and left colonic flexure in their anatomical place. A typical whirl sign is seen.

Colic volvulus is a frequent cause of benign mechanical large intestinal obstruction [1]. It most frequently occurs in the sigmoid followed by the cecum [1,2]. Colic flexures and transverse colon volvulus rarely occur, and the literature is sparse concerning

these sites of volvulus [1,3]. Guidelines are clear concerning the management of cecal and sigmoid volvulus, whereas reports are controversial about the management of transverse colon volvulus [2]. The controversy is especially concerning whether endoscopic reduction should be attempted initially, such as in sigmoid volvulus. Whereas it is clear that cecal volvulus should not have a trial of endoscopic reduction, the management of transverse colon volvulus is not clear [1–3].

Transverse colon volvulus has also been associated with Chilaiditi syndrome. [3] Plain radiography of these volvuluses shows an upper abdominal coffee bean sign [3]. CT scan, which is the gold standard imaging study, will identify a typical whirl sign, under a bird's beak sign, in volvulus of the transverse colon, with cecum and left splenic flexure in their anatomical place [1,3].

The management of this patient consisted of a right hemicolectomy with ileocolic anastomosis. There was no attempt of endoscopic reduction before surgery. The patient's postoperative phase was uneventful, and he was discharged on the fourth operative day.

### Conflict of Interest

None.

### Funding Source

None.

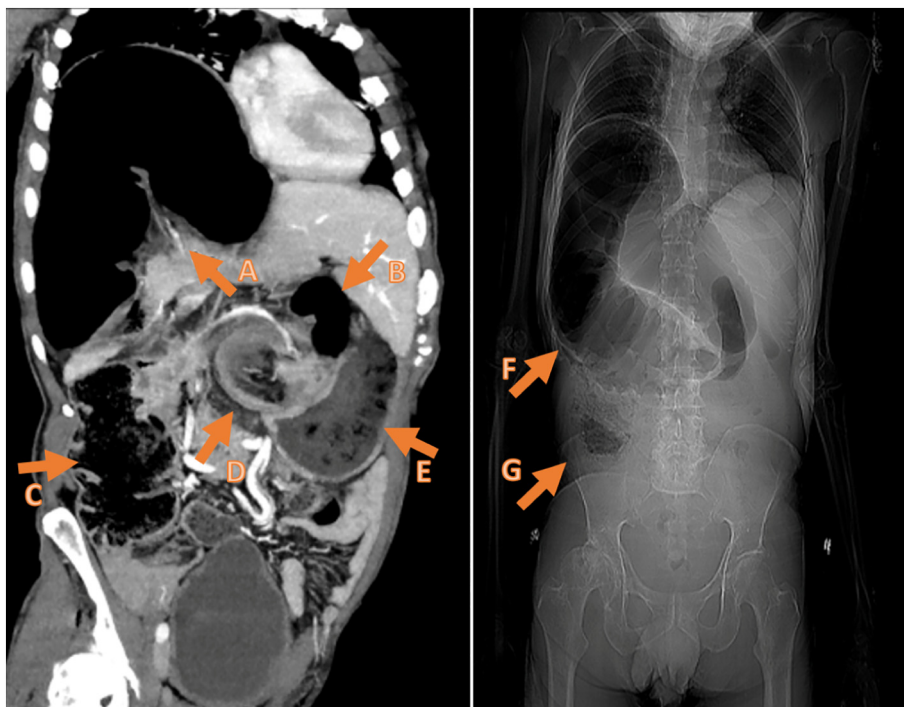
### Author Contribution

Each listed author contributed to the writing and editing of the manuscript. Dr Valdote edited and described the radiological images.

### Ethics Approval

Informed consent was obtained from the participant included in the study.

\* Corresponding author at: Department of Digestive Surgery, University Hospital of Dijon, 14 Rue Paul Gaffarel, 21000 Dijon, France. Tel.: 03 80 29 37 47; fax: 03 80 29 35 91.  
E-mail address: [f.aboalhassan@gmail.com](mailto:f.aboalhassan@gmail.com) (A.-A. Fawaz).



**Fig 1.** CT on the left, plain radiograph on the right. A, Transverse colon volvulus; B, left splenic flexure; C, cecum; D, whirl sign; E, stomach; F, coffee bean sign; and G, cecum.

### References

- [1] Naveed M, Jamil LH, Fujii-Lau LL, Al-Haddad M, Buxbaum JL, Fishman DS, et al. American Society for Gastrointestinal Endoscopy guideline on the role of endoscopy in the management of acute colonic pseudo-obstruction and colonic volvulus. *Gastrointest Endosc.* 2020;91(2):228–35.
- [2] Gingold D, Murrell Z. Management of colonic volvulus. *Clin Colon Rectal Surg.* 2012; 25(04):236–44.
- [3] Matsushima K, Suzuki Y. Transverse colon volvulus and associated Chilaiditi's syndrome. *Am J Surg.* 2006;192(2):203–4.