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IMAGE OF THE MONTH

Gastric and intestinal pneumatosis

Neumatosis gástrica e intestinal

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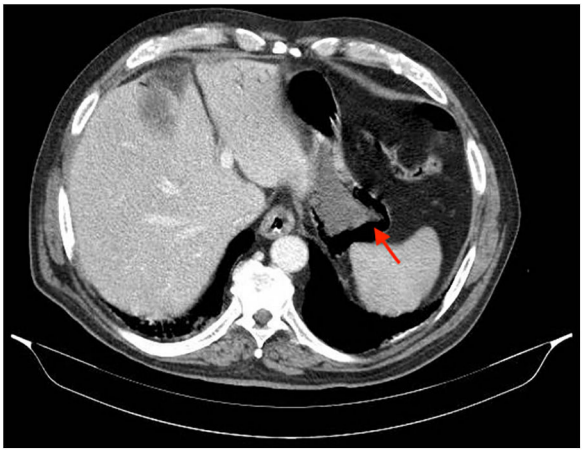

Figure 1 Gastric pneumatosis (red arrow).

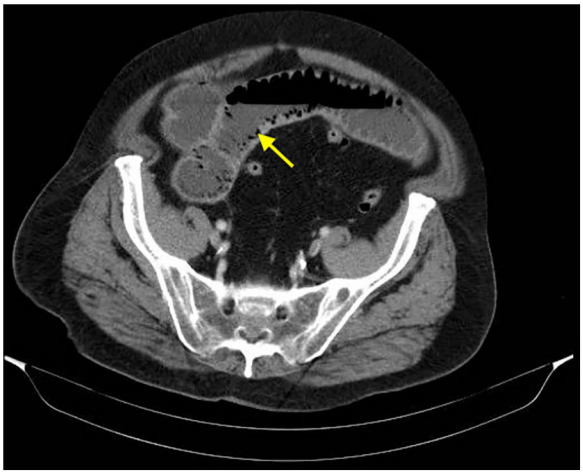

Figure 2 Intestinal pneumatosis (yellow arrow).

An 81-year-old male with personal history of hypertension, hypothyroidism, heart failure, and total laryngectomy presented with coffee ground emesis and diffuse abdominal pain. He had tachycardia (140 bpm) and hypotension (blood pressure of 82/46 mmHg). Physical exam revealed diffuse abdominal tenderness with guarding and cold and clammy skin. The results of laboratory studies included a white-cell count of 19,100 per cubic millimeter; the serum creatinine level was 5.4 mg per deciliter and lactic acid level of 21.1 mmol per liter.

Computed tomography showed diffuse and circumferential air at the stomach (Fig. 1, red arrow) and distal ileum wall (Fig. 2, yellow arrow), hepatic portal venous gas in liver segment IV (Fig. 3, orange arrow) and left liver lobe. There was no defect of repletion in both celiac trunk and superior mesenteric artery (Figs. 4 and 5 respectively).

Surgical intervention was proposed for suspected ischemic bowel disease, but the family decline further intervention. The patient died after 6 h.

Intestinal pneumatosis is defined as air within the wall of the gastrointestinal tract. It is associated with dire clinical conditions such as pulmonary disease, ischemia, bacterial infections, or mechanical causes.[1] Acute bowel ischemia is an urgent,

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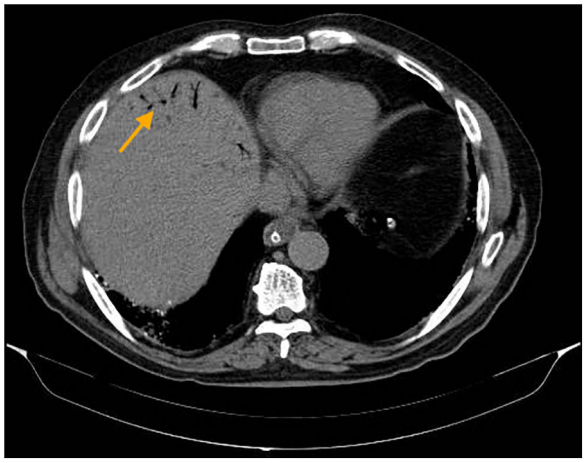

Figure 3 Hepatic portal venous gas (orange arrow).

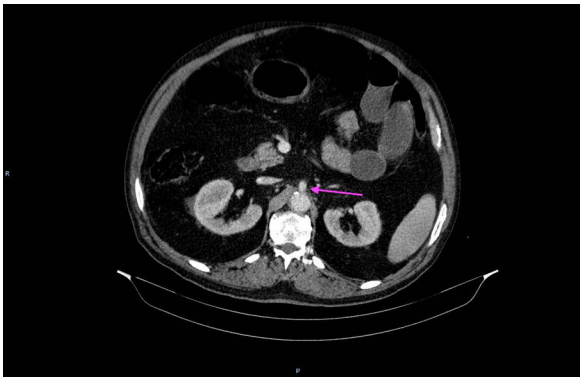

Figure 4 Permeable celiac trunk (pink arrow).

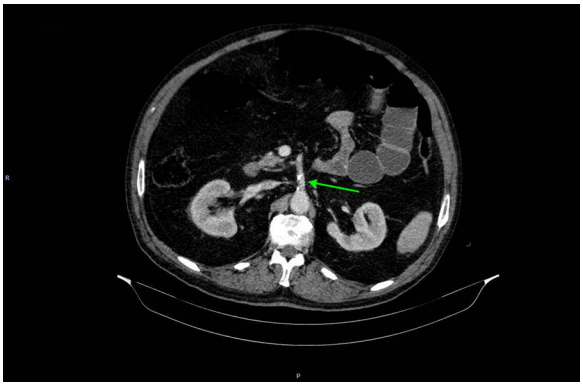

Figure 5 Permeable superior mesenteric artery (green arrow).

life-threatening vascular condition.[2] It is the primary etiology of hepatic portal venous gas and when associated, they are related to a high mortality rate (85%).[3]

Conflict of interest

The authors declare no conflict of interest.

References

1. Lin WT, Chao CM, Lai CC. Esophageal, gastric, and intestinal pneumatosis. J Emerg Med. 2015;48:e41–2, http://dx.doi.org/10.1016/j.jemermed.2014.09.047.
2. Milone M, Di Minno MN, Musella M, Maietta P, Iaccarino V, Barone G, et al. Computed tomography findings of pneumatosis and portomesenteric venous gas in acute bowel ischemia. World J Gastroenterol. 2013;19:6579–84, http://dx.doi.org/10.3748/wjg.v19.i39.6579.
3. Abboud B, El Hachem J, Yazbeck T, Doumit C. Hepatic portal venous gas: physiopathology, etiology, prognosis and treatment. World J Gastroenterol. 2009;15:3585–90.