

Duodenal involvement related to vascular complications: diagnosed by upper gastrointestinal endoscopy

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The vascular enteric fistulae are severe. Late diagnosis causes high mortality⁽¹⁾. The aortoduodenal fistulae are the most frequent (80%) and occur due to an aortic aneurysm⁽²⁾. The inferior caval vein filter (ICVF) is indicated when anticoagulation is contraindicated due to the risk of bleeding⁽³⁾. Its implantation is not free from short or long term complications⁽⁴⁾. The authors report two cases of vascular enteric fistulae, one derived from an aortic aneurysm and the other by ICVF, both perforated into the duodenum and detected by upper gastrointestinal endoscopy.

A 76-year-old man with abdominal pain, hematemesis and melena for 5 days. He reports aortic aneurysm. He arrived in serious condition, hypotensive (systolic pressure 90 mmHg) and with tachycardia (120 bpm). The rectal examination revealed the presence of living blood. After hemodynamic stabilization, the endoscopy showed a deep and pulsatile ulcer in the second duodenal portion, circumferentially affecting the organ's lumen, covered by fibrin and clots, compatible with aortoduodenal fistulae (FIGURE 1 and E-VIDEO). Computed tomography scan confirmed the finding of an infrarenal aortic aneurysm (7.5 cm) with rupture, in close

contact with the duodenum, determining focal compression of the inferior vena cava. There was a new hemodynamic instability a few hours after admission with massive hematemesis and there was no time for surgical approach. He was referred to the intensive care unit and died 24 hours later.

Female, 54 years old, with abdominal pain, abdominal distension and postprandial fullness for 2 months. Physical examination revealed pain on deep palpation in the right flank and epigastrium. Eight years ago abdominal trauma with splenic injury. She had deep venous thrombosis in her lower limb, requiring ICVF implantation. Submitted to endoscopy that revealed an ICVF strut perforating the duodenum wall (E-VIDEO). Computed tomography scan showed the ICVF positioned below the confluence of the renal veins, and with its struts perforating the duodenum, right psoas muscle and attached to the L3 vertebral body (FIGURE 2). The patient underwent surgery, which identified the ICVF (FIGURE 3.A). The ICVF was removed and the duodenal wall sutured (FIGURE 3). The patient evolved well and was discharged on the eighth postoperative day.

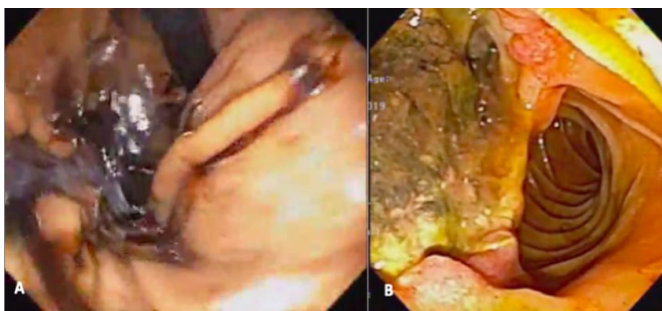


FIGURE 1. A) Hematic residues inside the stomach. B) Aortoduodenal fistula.

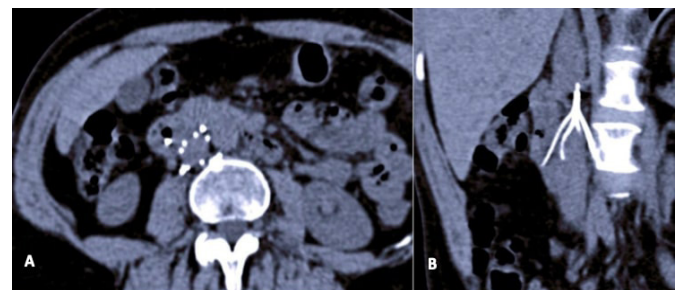


FIGURE 2. A) CT-scan showing inferior vena cava with its larger components perforating adjacent structures (duodenum, right psoas muscle and L3 vertebral body). B) CT-coronal view.

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E-VIDEO: <https://youtu.be/swTFnJuXwOE>



FIGURE 3. Intra-operative view. A) Adherence between the 2nd duodenal portion and the vena cava. B) Perforation site in the 2nd duodenal portion. C) Suture of the duodenal wall. D) Recovered vena cava filter.

We emphasize the importance of valuing complaints reported by patients with these antecedents, in addition to performing a detailed physical examination. The diagnostic iconography must be precise, so that the treatment can be abbreviated. Remember that the close anatomical relationship of the retroperitoneal vascular organs and structures favors the appearance of complications in this topography.

Authors' contribution

Reis ACF designed the study, drafted the article and analyzed and interpreted the data; Romanini SG, Rampazzo Neto A, Tren-

tini B, Aun R and Ardengh JC analyzed the data. Ardengh JC approved the final version to be published. All authors read and approved the final manuscript.

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