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Clinical Image

Gastric diverticulum: a rare incidental finding during computed tomography

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Gastric diverticulum is a blind-ending protrusion of the stomach wall towards the abdominal cavity. As a rule, the disease is asymptomatic and diagnosed by chance. The symptomatic form is usually accompanied by abdominal pain in the upper abdomen and less often dyspepsia [1]. Prevalence varies from 0.013 to 2.6% and depends on the method of evaluation [1, 2]. It mainly occurs in people from 50 to 70 years of age. Gastric diverticulum can be complicated by diverticulitis, perforation, bleeding, malignancy, which may require upper gastrointestinal endoscopy or surgery [2, 3]. Asymptomatic gastric diverticulosis does not require treatment. The main treatment for diverticulosis is gastric resection and is performed for large diverticulum (≥4 cm), in case of symptoms or complications [2-4]. We present a clinical observation of a 75-year-old female patient who was admitted to the hospital with complaints of epigastric pain, impaired stool passage, nausea and vomiting. Several days ago, the patient underwent laparotomy for detorsion of the transverse colon volvulus. The patient regularly took laxatives for management of her symptoms. Given the clinical picture of intestinal obstruction, CT of the abdominal cavity (Philips Ingenuity Core, 2015, 128 slices) with oral contrast was performed, which did not reveal data on intestinal obstruction. However, it incidentally demonstrated a diverticulum prolapsing into the abdominal cavity along the greater curvature of the stomach at the level of the cardiac region (Figure 1). Upper gastrointestinal endoscopy was performed, during which the mouth of the diverticulum was up to 1.0 cm in diameter with a clean

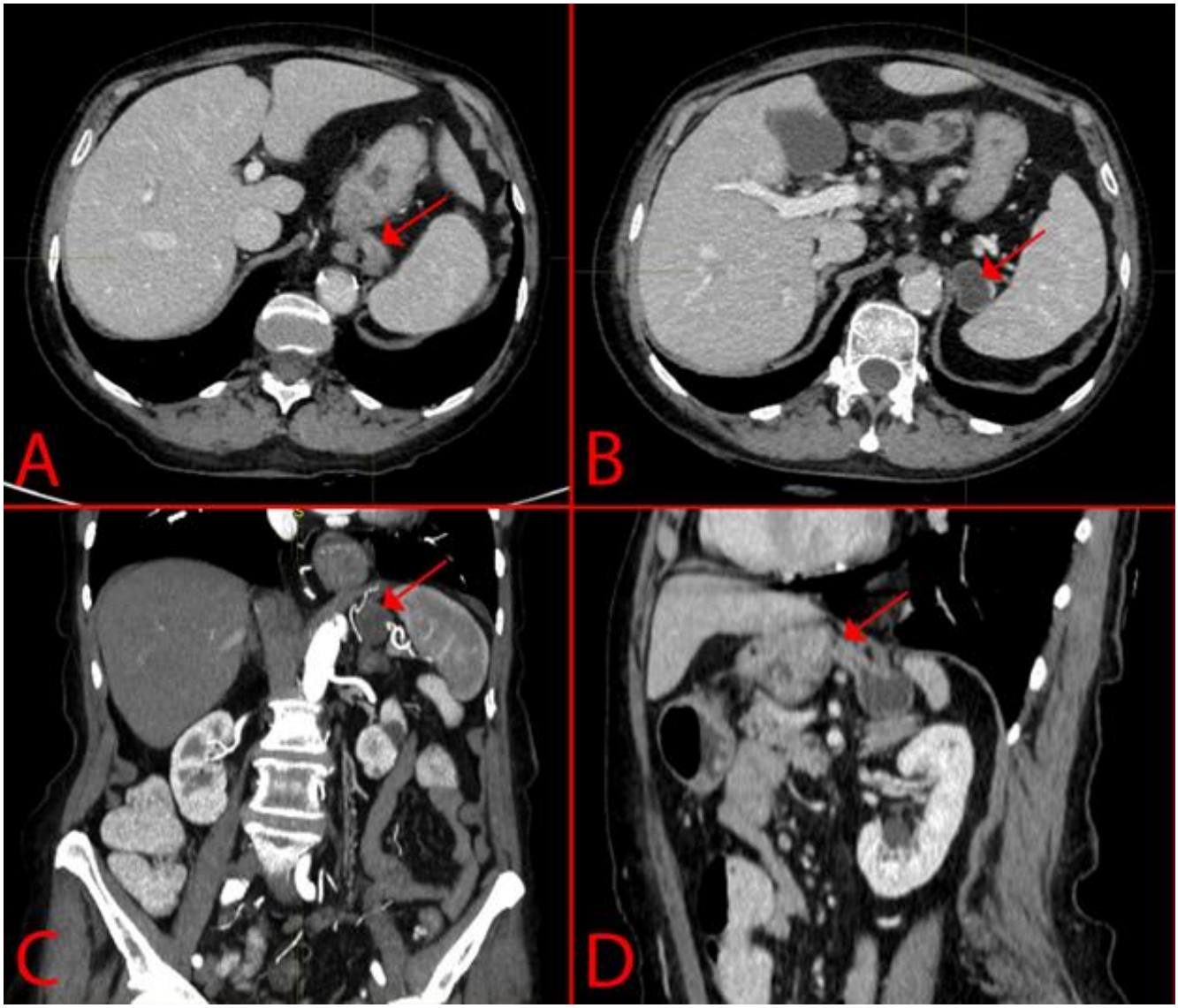

***Figure 1**: CT image of the abdomen. A: Axial section, venous phase (arrow indicates the neck of the diverticulum); B: Axial section, venous phase (arrow indicates the fundus of the diverticulum); C: Frontal section (arterial phase) demonstrating the fundus of the diverticulum located in a highly vascularized zone; D: Sagittal section, venous phase (arrow indicates the neck of the diverticulum).*

bottom and no signs of inflammation. The rarity of gastric diverticulum is reinforced by the fact that in our 5-year practice we have encountered only the second case of gastric diverticulum, although the we are a high-volume center from abdominal surgery and endoscopy [5]. Our patients had abdominal pain syndrome in the epigastric region, accompanied by nausea and vomiting, which could be attributed to gastric diverticulum, however, results of her CT and surgery point to the fact that the symptoms were attributed to intestinal obstruction [1-3]. According to upper gastrointestinal endoscopy there was no evidence of gastric diverticulitis or other condition that could cause these symptoms. Therefore, we believe that the patient's condition was associated with the early postoperative period. The management of gastric diverticulum depends on the clinical picture. Asymptomatic patients do not require treatment. Symptomatic patients can be managed conservatively with proton pump inhibitors, histamine H_2 receptor antagonist or antacid therapy. Surgery is limited to symptomatic patients, patients with large (more than 4 cm diverticula) and complications (ulceration, bleeding, perforation and malignant transformation) [1, 3, 5]. The differential diagnosis may include pathological conditions in the paravertebral zone like tumors, cysts and abscesses, other diseases of the stomach and adrenal masses. They can also be mistaken for a developmental disorder, such as a double pylorus [1-5].

1. CONFLICT OF INTERESTS

The authors have no conflict of interest to declare. The authors declared that this study has received no financial support.

2. REFERENCES

1. Morris PD, Allaway MGR, Mwagiru DK, Sinclair JB, Hollands M. Gastric diverticulum: a contemporary review and update in management. ANZ J Surg. 2023;93(12):2828-32. doi: 10.1111/ans.18707.

2. Raffin SB. Diverticula, rupture and volvulus. In: Sleigenger MH, Fordtran JS, editors. Gastrointestinal Disease: Pathophysiology, Diagnosis, Management. 5th ed. Philadelphia: Saunders WB; 1989: 735-42

3. Shah J, Patel K, Sunkara T, Papafragkakis C, Shahidullah A. Gastric Diverticulum: A Comprehensive Review. Inflamm Intest Dis. 2019;3(4):161-6. doi: 10.1159/000495463.ç

4. Rashid F, Aber A, Iftikhar SY. A review on gastric diverticulum. World J Emerg Surg. 2012;7(1):1. doi: 10.1186/1749-7922-7-1.

5. Shabunin AV, Bedin VV, Yakomaskin VN, Grekov DN, Covantev S. Clinical Case of a Gastric Diverticulum Operated by Laparoscopic Approach. Online J Health Allied Scs. 2018;17(4):9.