CASE REPORT

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A Rare Diagnosis of Abdominal Pain

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Abstract

Abdominal pain is a very common complaint among patients presenting to the emergency department. Many different reasons can cause abdominal pain; therefore, the differential diagnosis list can be quite long. In differential diagnosis, anamnesis, examination findings, laboratory tests, and radiological imaging methods are helpful. This article presents the findings of a 79-year-old male patient who presented to an emergency room with nausea and vomiting and increased right upper quadrant pain for three days. Based on his physical examinations and laboratory test results, the only positive finding was rebound tenderness in the right upper abdominal quadrant. Computed tomography sections showed a 3x1 cm diverticular filling extending from the antrum to the perigastric region's superomedial part. Edema, increased wall thickness, and enhancement were observed in the walls of the diverticulum. As a result of all these findings, the diagnosis was considered to be gastric diverticulitis (GD). Gastric diverticulum is the rarest diverticulum in the gastrointestinal tract. GDs are often asymptomatic and are rarely symptomatic, depending on their size. Physical examinations and laboratory tests in diagnosing GD are non-specific; however, radiological imaging methods play an essential role. Additionally, GD can be diagnosed via endoscopic procedures.

Keywords: Gastric diverticulitis, computed tomography, abdominal pain

INTRODUCTION

One of the most frequent complaints among patients who visit the emergency room is abdominal pain. Abdominal pain can occur due to a variety of causes. Therefore, the list of differential diagnoses is extensive. In this article, we aimed to present an infrequent cause of abdominal pain with computed tomography (CT) findings.

CASE PRESENTATION

Questions

A 79-year-old male patient was admitted to the emergency department with the chief complaints of nausea, vomiting, and increased right upper quadrant pain for three days. The patient had a history of indapamide treatment for hypertension for about 15 years. On physical examination, his vitals were stable. Bowel sounds were normoactive, and there was no palpable abdominal mass. The only positive finding was rebound tenderness in the right upper abdominal quadrant. Laboratory tests were normal, including complete blood count and liver and kidney function tests.

As a result of physical examinations and laboratory results, the patient was further evaluated with radiologic examinations. Initially, supine and erect direct abdominal graphics, and afterwards, abdominal ultrasonography examinations were performed. In these examinations, there was no significant finding. After these evaluations, the patient underwent contrast-enhanced abdominal CT. CT images showed diffusely increased wall thickness at the gastric antrum. Additionally, medial contour irregularity and increased gastric wall enhancement at the level of the antrum were observed. Significant heterogeneity and increased density were observed in the perigastric fat tissue plan around the antrum (Figure 1a, b).

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CT sections showed a 3 cm by 1 cm diverticular filling excess extending from the antrum to the superomedial part of the perigastric region (Figure 2a, b). Edema, increased wall thickness, and enhancement were observed in the walls of the diverticulum (Figure 3a). Furthermore, in perigastric fat plans around the diverticulum, heterogeneity and increased density values due to inflammation were determined (Figure 3b). As a result of all these findings, the diagnosis was considered as gastric diverticulitis (GD). Non-steroidal anti-inflammatory and anti-acid drugs were used in the treatment of GD. After treatment with the appropriate dose and duration, abdominal pain and other complaints disappeared. The patient was discharged with a gastroenterology outpatient clinic follow-up recommendation. In the gastroenterology outpatient clinic, follow-up esophagogastroduodenoscopy was applied. The diverticulum was also proved by endoscopy (Figure 4).

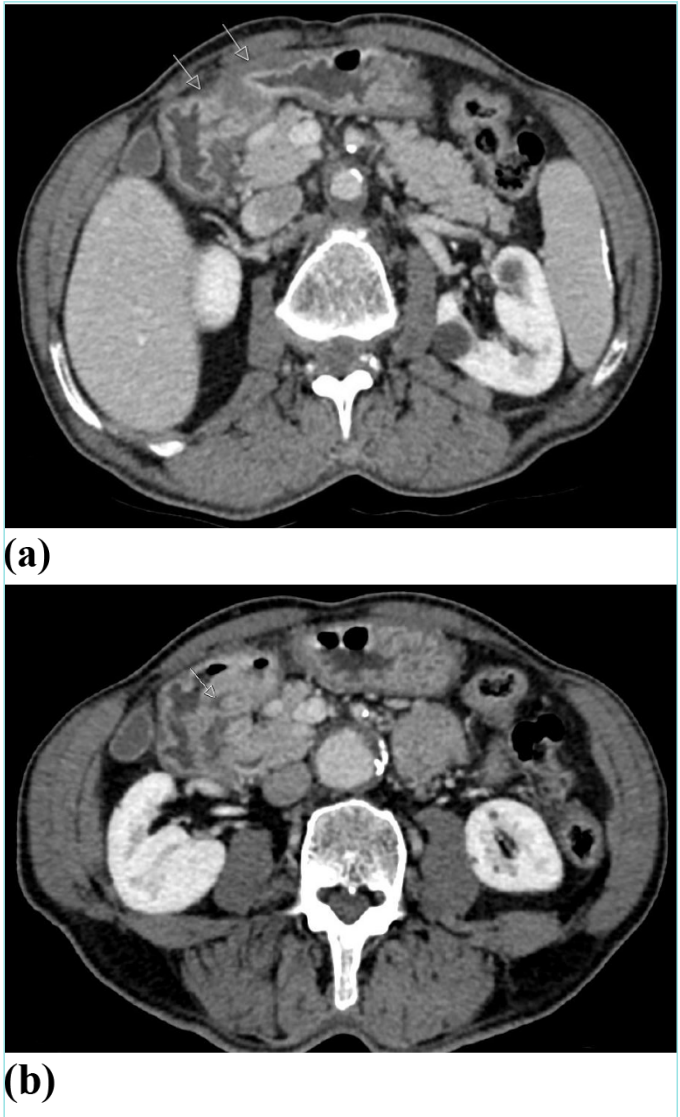

Figure 1. Axial contrast-enhanced abdomen computed tomography revealed diffusely increased wall thickness at the gastric antrum, significant heterogeneity and increased density in perigastric fat tissue plan (a), medial contour irregularity, and increased enhancement of gastric wall at the level of the antrum (b)

DISCUSSION

Gastric diverticulum is the rarest diverticulum in the gastrointestinal tract.[1] There are limited numbers of GD cases reported in the literature. GDs are often asymptomatic and are rarely symptomatic, depending on their size. The most common symptoms are epigastric pain, nausea, vomiting, and dyspeptic complaints, as in our case.[2]

In diagnosing GD, physical examinations and laboratory tests are nonspecific. However, radiological imaging methods play an important role. Among all imaging modalities, sectional methods, including abdominal CT and magnetic resonance imaging, are the most important diagnostic modalities.[3] Additionally, GD can be diagnosed via endoscopic procedures.[4]

Figure 2. Coronal (a) and sagittal (b) reformatted contrast abdomen computed tomography sections showed a 3x1 cm diverticular filling excess (white arrows) extending from the antrum to the superomedial part of the perigastric region

(a)

(b)

Figure 3. In axial (a, b), contrast-enhanced abdomen computed tomography sections, edema, increased wall thickness, and enhancement were observed in the walls of the diverticulum (a). In perigastric fat plans around the diverticulum, heterogeneity and increased density values due to inflammation were determined (b).

In the treatment of GD, the primary method is a conservative approach and anti-acid treatment. In cases of response failure to medical therapy, diverticular haemorrhage or diverticulum perforation may occur. In these cases, surgical options, primarily laparoscopic methods, should be considered in the treatment.

In conclusion, although gastric diverticulum is one of the rarest and asymptomatic pathologies of the gastrointestinal tract, it may be symptomatic when GD occurs. GD should be considered in the differential diagnoses of those patients presenting with sudden onset upper quadrant pain.

MAIN POINTS

- Many different reasons can cause abdominal pain, and therefore, the differential diagnosis list can be quite long.
- Gastric diverticulum is the rarest diverticulum in the gastrointestinal tract.

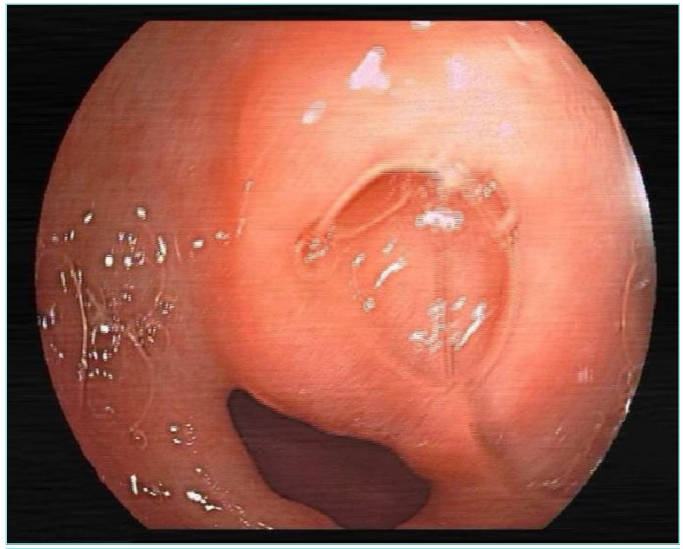

Figure 4. Follow-up esophagogastroduodenoscopy showed the antral diverticulum also

- Gastric diverticulitis is often asymptomatic and is rarely symptomatic, depending on its size. Epigastric pain, nausea, vomiting, and dyspeptic complaints are the most common symptoms.
- Among all imaging modalities, sectional methods, including abdominal CT and magnetic resonance imaging, are the most important diagnostic modalities.

ETHICS

Informed Consent: It was obtained.

Peer-review: Internally peer-reviewed.

Authorship Contributions

Concept: H.A.Ö., I.B.A., C.A., Ö.S.T., M.S., Design: H.A.Ö., I.B.A., C.A., Ö.S.T., M.S., Data Collection and/or Processing: H.A.Ö., I.B.A., C.A., Ö.S.T., M.S., Analysis and/or Interpretation: H.A.Ö., I.B.A., C.A., Ö.S.T., M.S., Literature Search: H.A.Ö., I.B.A., C.A., Ö.S.T., M.S., Writing: H.A.Ö., I.B.A., C.A., Ö.S.T., M.S.

DISCLOSURES

Conflict of Interest: No conflict of interest was declared by the authors.

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