



Intractable severe epigastric pain in a 57-year-old woman

What is the diagnosis?

Question:

A 57-year-old woman was admitted with sudden-onset severe abdominal pain, nausea, and vomiting, which continued for 2 days. On conducting a physical examination, epigastric tenderness was detected. Mild leu-

kocytosis and C-reactive protein (CRP) level elevation were detected in her laboratory test results. The amylase level was normal. No abnormal abdominal findings were detected on the plain abdominal radiograph. Contrast-enhanced abdominal CT was performed for evaluating the patient.



Figure 1. Contrast-enhanced CT shows a duodenal wall defect at the third part of the duodenum and free air densities in the lesser sac



Figure 2. Gastroduodenoscopic examination shows an ulceration filled with necrotic tissues at the third part of the duodenum

Answer: Confined perforation of an atypically localised peptic ulcer

Herein we described a case of an atypical peptic ulcer-confined perforation in a 57-year-old woman who was diagnosed on performing contrast-enhanced abdominal CT and a gastroduodenoscopic examination. Contrast-enhanced abdominal CT revealed inflamed omental fat tissue and numerous lymph nodes and air bubbles scattered from the third segment of the duodenum in the lesser sac (Figure 1). The patient was diagnosed as having an atypically localized peptic ulcer-confined perforation. A gastroscopic examination revealed an ulceration filled with necrotic tissue in the third segment of the duodenum (Figure 2). The patient was not operated on. Spontaneous healing was achieved with supportive medical treatment. The gastrin level was found to be normal. In the second month post admission, a control gastroscopic examination showed the healed ulcer area as a diverticulum (Figure 3).

A peptic ulcer can be defined as a defect in the gastrointestinal tract wall that extends through the mucosa and muscularis mucosa into the deeper layers as the submucosa or muscularis propria, which caused by the digestive effect of gastric hydrochloric acid and pepsin. Although, peptic ulcers affect the upper gastrointestinal tract, they can be seen in Meckel's diverticulum that includes the ectopic gastric mucosa. In a randomized study, peptic ulcer prevalence was found to be 4% in a population of adults aged 20 years and more (1). Peptic ulcers can be complicated by bleeding, perforation, obstruction, or penetration. Complications can be seen 10%–20% of patients with peptic ulcers. They can be perforated in 2%–14% of the cases. Females constitute approximately half of the perforated cases (2,3). An increase in the proportion of duodenal ulcer perforation in women older than 45 years of age has been observed (4). The duodenum is the one of the most common areas for the localization of peptic ulcers. Duodenal ulcers are localized in the first part of the duodenum in 95% of the cases. Atypical duodenal localization is seen in 5% of the duodenal ulcers. Atypically localized duodenal ulcers may show atypical symptoms and clinical conditions. Duodenal ulcer perforation is an acute and life-threatening condition requiring emergency surgical intervention. A duodenal ulcer can be perforated freely into the peritoneum or confined by peripheral tissues. While free duodenal perforation has typical clinical, laboratory, and radiological findings, confined duodenal perforation can be revealed with silent clinical and radiological findings. The diagnosis of a confined duodenal perforation is difficult and can be confused with other clinical conditions caused by acute abdominal pain, e.g., acute pancreatitis or acute appendicitis. In our patient, the confined perforation of the atypically localized peptic ulcer was diagnosed with contrast-enhanced abdominal CT and was confirmed on performing a gastroduodenoscopic examination. Duodenal ulcers are common clinical conditions. Atypical forms of duodenal ulcers can be revealed with atypical clinical presentations. Duodenal ulcers and their complications should be kept in mind in patients with intractable epigastric pain.



Figure 3. Control gastroduodenoscopic examination shows healed ulceration as a diverticulum at the third part of the duodenum

Ethics Committee Approval: Ethics committee approval was not received for this study from the ethics committee.

Informed Consent: Written informed consent was obtained from the patient who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - A.N.Y., S.P.; Design - A.N.Y., S.P.; Supervision - A.N.Y., S.P.; Materials - A.N.Y., S.P.; Data Collection and/or Processing - A.N.Y., S.P.; Analysis and/or Interpretation - A.N.Y., S.P.; Literature Review - A.N.Y., S.P.; Writer - A.N.Y., S.P.; Clinical Review - A.N.Y., S.P.; Other - A.N.Y., S.P.

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

Financial Disclosure: The authors declared that this study has received no financial support.

Ali Naki Yücesoy¹, Süheyl Poçan²

¹Department of General Surgery, Batı Bahat Hospital, İstanbul, Turkey

²Department of Radiodiagnostic, Batı Bahat Hospital, İstanbul, Turkey

REFERENCES

1. Aro P, Storskrubb T, Ronkainen J, et al. Peptic Ulcer Disease in a General Adult Population. *Am J Epidemiol* 2006; 163: 1025-34. [\[CrossRef\]](#)
2. Bertleff MJ, Lange JF. Perforated peptic ulcer disease: a review of history and treatment. *Dig Surg* 2010; 27: 161-9. [\[CrossRef\]](#)
3. Lau JY, Sung J, Hill C, Henderson C, Howden CW, Metz DC. Systematic review of the epidemiology of complicated peptic ulcer disease: incidence, recurrence, risk factors and mortality. *Digestion* 2011; 84: 102-13. [\[CrossRef\]](#)
4. Wysocki A, Budzynski P, Kulawik J, et al. Changes in the localization of perforated peptic ulcer and its relation to gender and age of the patients throughout the last 45 years. *World J Surg* 2011; 35: 811-6. [\[CrossRef\]](#)

Address for Correspondence: Ali Naki Yücesoy

E-mail: alinakiyucesoy@gmail.com

Received: August 2, 2016

Accepted: August 17, 2016

© Copyright 2016 by The Turkish Society of Gastroenterology •

Available online at www.turkjgastroenterol.org • DOI: 10.5152/tjg.2016.16448