

GASTRODUODENAL FISTULA DUE TO PEPTIC ULCER: CASE REPORT

Ataseven H. *, Çelebis. *, Yalnız M. *, Günaydın S. **, Poyrazoğlu O.K. *, Bahçecioğlu İ. H. *

Fırat Üniversitesi Tıp Fakültesi, Gastroenteroloji BD1, İç Hastalıkları AD2, ELAZIĞ

*Hüseyin ATASEVEN : Fırat Üniversitesi Gastroenteroloji Bilim Dalı, 23100 Elazığ/TURKEY
Tlf: 0-424 233 35 55 Fax: 0-424 233 50 38 E-mail: huseyinataseven@hotmail.com*

ÖZET

Gastroduodenal fistül mide distali ile duodenum arasında kısa bir aksesuar kanal olarak tanımlanan nadir bir hastalıktır. Gerçek sıklığı bilinmemekle birlikte literatürde yaklaşık 100 olgu bildirilmiştir. Antrumda bulunan ülserin intramural penetrasyonu sonucu gelişen mide ve duoenumun adezyonu sonucu oluştuğu düşünülmektedir. Bu sunumda incisura angularisde bulunan geniş bir ülserin duodenuma perforasyonu sonucu gelişen geniş fistülü bulunan nadir bir olguyu tartıştık.

ANAHTAR KELİMELELER : Gastroduodenal fistül, peptic ülser, NSAİİ

GASTRODUODENAL FISTULA DUE TO PEPTIC ULCER

ABSTRACT

Gastroduodenal fistula, a short accessory canal extending from the distal stomach to the duodenal bulb, is a rare condition. To date, about 100 cases have been reported in the literature. Presumably, the intramural penetration of an ulcer in the antrum creates adhesions between the stomach and duodenum. We present an unusual case of perforation of a giant gastric ulcer at the angular notch into the duodenum with formation of a large, persistent fistula.

KEY WORDS : Gastroduodenal fistula, peptic ulcer, NSAID

INTRODUCTION

Gastroduodenal fistula, which creates a short accessory canal extending from distal stomach to the duodenal bulb, is a rare condition (1-6). Although some gastroduodenal fistula cases have been reported to be congenital (7,8), most authors believe that it is an acquired lesion, which develops secondary to the perforation of benign antral ulcer into the lumen of the duodenum (1-3). We present an unusual case of perforation of a giant gastric ulcer at angular notch into the duodenum with formation of a large, persistent fistula.

CASE

A 60 year-old man with hematemesis and melena was admitted on Dec 2003. He had a 10-year history of intermittent epigastric pain with a burning nature and no radiation. He had been followed as schizophrenia for 30 years. Hence, he had been taking several different antipsychotic drugs during this time. Additionally, he ingested a lot of analgesics (nonsteroidal anti-inflammatory drugs) for abdominal pain by himself in the last ten years. On admission, his blood pressure was 100/60 mmHg and pulse rate was 96/min. Hypochromic-microcytic anemia was evident; haemoglobin: 6.8 g/dL; hematocrit: 23.7%, MCV: 72.1 fL. Emergency upper endoscopy revealed a large ulcerative lesion (2.5 cm) at the angular notch of the stomach. A channel extending from the lesser curvature to the duodenal bulb was recognized in the lesion.

Endoscope passed through the channel into the duodenal bulb. This channel considered as the origin of the gastrointestinal bleeding. Bulbus was observed as edematous (Figure 1, 2, 3). Hence, passage to distal of the bulbus was very hard. Histopathologic evaluation of multiple biopsies showed benign ulcer with chronic inflammation. Barium meal study also demonstrated a fistula tract between lesser curvature of stomach and superior portion of the duodenal bulb (Figure 4). Proton pump inhibitors and blood transfusion were administered for treatment.

DISCUSSION

Since the first description of gastroduodenal fistula (GDF), which is known as double pylorus by Mohr in 1842, about 100 cases have been reported in the literature (2,5). The incidence of GDF is not well characterized. The prevalence is reported around 0.02% to 0.4% with an approximately 2:1 male-female ratio (2,10,11). This probably reflects an underreporting and under diagnosing of GDF rather than a true low incidence (5). While a GDF may occasionally be congenital in origin (7,8), the acquired nature of this condition has also been well demonstrated by serial endoscopic and/or barium meal studies that have revealed the development of the fistula subsequent to an antral or duodenal ulcer (1-3,9). Presumably, intramural penetration of the ulcer creates adhesions between the stomach and duodenum, which eventually leads to fistulous

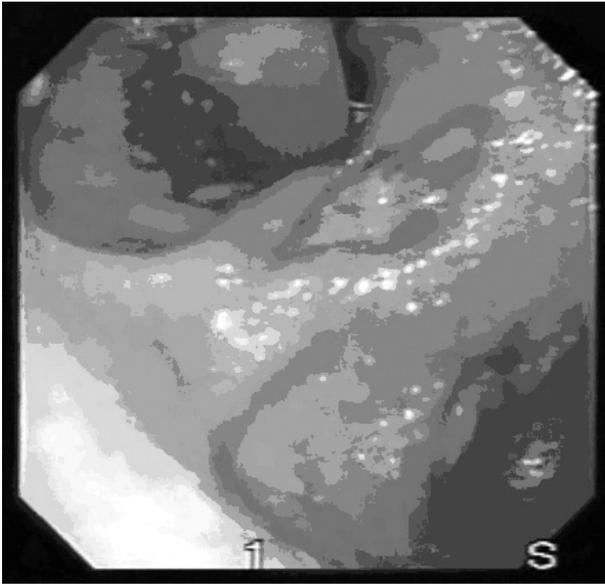


Figure 1: A large ulcerative lesion at the angular notch of the stomach

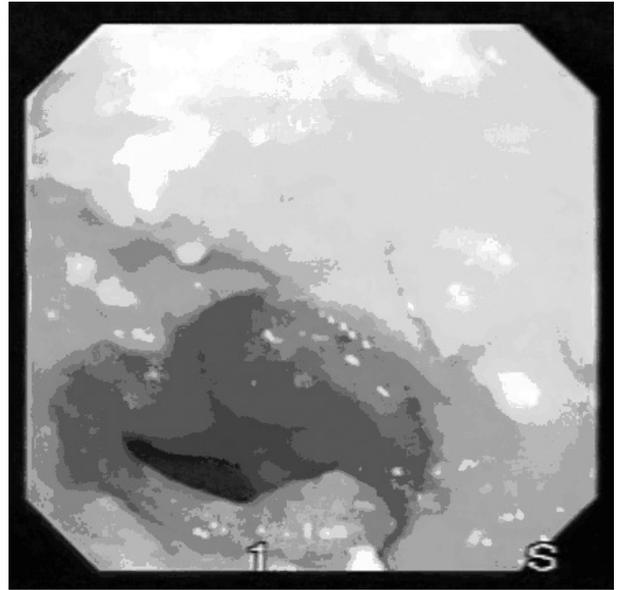


Figure 2: A channel extending from the lesser curvature to the duodenal bulb

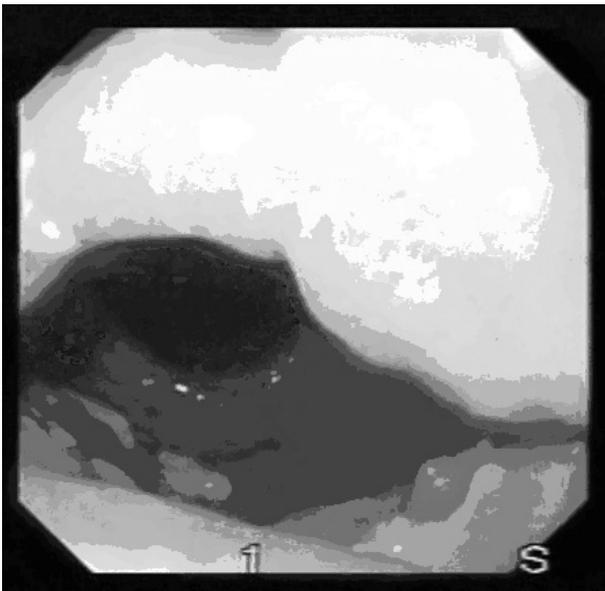


Figure 3: A view from duodenal bulb through the gastroduodenal fistula to stomach

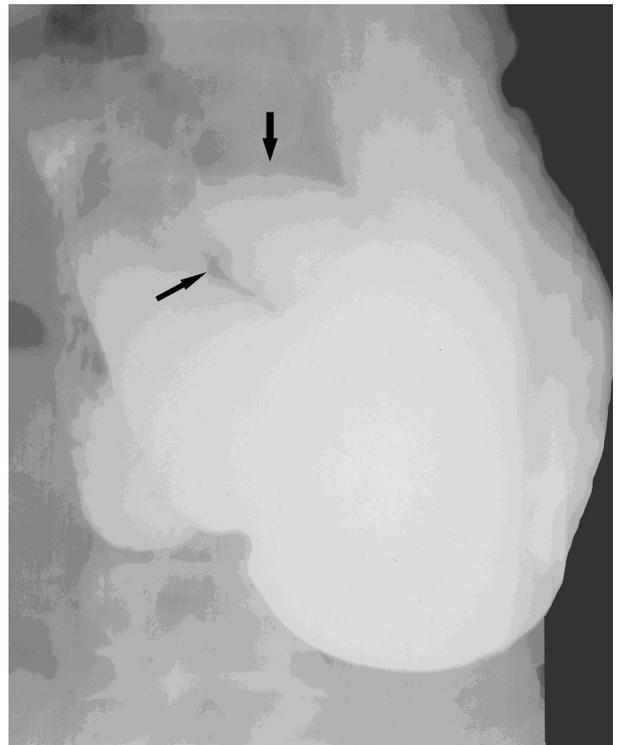


Figure 4: Barium meal study; a fistula tract between lesser curvature of stomach and superior portion of the duodenal bulb

communication. In the present case, endoscopic evaluation revealed a fistula between lesser curvature of stomach and duodenal bulb.

The differential diagnosis of GDF is not extensive. Several authors have mentioned possible confusion with Crohn disease (12,13). However, most fistulae involving the duodenum in Crohn's disease have originated from the

ileal disease (14). Thus far, there have been no reported cases of Crohn's disease presenting as GDF. GDF cases due to malignancy have also been reported and biopsy is very important in the diagnosis of these cases (4,6). In this case, neither malignancy nor granuloma has been detected histopathologically.

In a prospective study, severe complications of

gastroduodenal perforation were noted in 52 of 52293 patients (approximately 0.1%) treated with NSAIDs for prolonged period in the UK (15). Analyzing the predisposing factors for perforation of the digestive tract in 76 patients revealed that the percentage of patients receiving NSAIDs in the group with perforation (71%) was significantly higher than that in age-matched control group without perforation (27%) (16).

Chronic NSAID usage history of the patient with epigastric pain more than ten years lent us to assume that NSAID caused to ulcer development in the lesser curvature of the

stomach that also penetrates to the bulb subsequent to deepening. History of schizophrenia also could lead to unintentional to the chronic NSAID ingestion and subsequent fistula development.

The clinical presentation is commonly with epigastric pain and overt or occult gastrointestinal bleeding. Symptoms of gastric outlet obstruction may be a feature during the development of the fistula. Symptoms may abate with the formation of the double pylorus (5,10). Treatment primarily has been conservative medical management. Surgery has only been reported in a few patients (10).

References

- Ramakrishnan T. Confined perforation of a prepyloric ulcer into the duodenum forming a gastroduodenal fistula. *Sout Med J* 1986;79:887-9.
- Hu TH, Tsai TL, Hsu CC et al. Clinical characteristics of double pylorus. *Gastrointest Endosc* 2001;54:464-70.
- Einhorn RI, Grace ND, Banks PA. The clinical significance and natural history of the double pylorus. *Dig Dis Sci* 1984;29:213-8.
- Friehling JS, Rosenthal LE. Gastric carcinoma presenting as double-channel pylorus on upper gastrointestinal series. *Dig Dis Sci* 1985;30:269-73.
- Fine M, Kavin H, Grant T. Double channel pylorus as a complication of carcinoma of the stomach. *Gastrointest Endosc* 1987;33:39-41.
- Matsuyama E, Nagashima R, Watanabe S, Takahashi T. Endoscopic hemostasis for hemorrhage from gastric cancer complicated by double-channel pylorus. *Gastrointest Endosc* 2001;53:679-80.
- Sufian S, Ominsky S, Matsumoto T. Congenital double pylorus: A case report and review of the literature. *Gastroenterology* 1977;73:154-7.
- Gupta A, Hollander D. Duplication of the pylorus found concomitantly with achalasia: congenital or peptic etiology? *Dig Dis Sci* 1977;22:829-30.
- Bender MD, Soffa DJ. Acquired double pylorus: a case report. *Radiology* 1975;116:325-6.
- Hegedus V, Poulsen PE, Reichardt J. The natural history of the double pylorus. *Radiology* 1978;126:29-34.
- Kothandaraman KR, Kutty KP, Hawken KA, Barrowman JA. Double pylorus-in evolution. *J Clin Gastroenterol* 1983;5:335-8.
- Rohde H, Troidl H, Fischer M. Antral duodenal fistula following penetration and perforation of a prepyloric ulcer into the duodenal bulb. *Gastrointest Endosc* 1975;22:99-101.
- Ghahremani GG, Gore RM, Fields WR. Acquired double pylorus due to gastroduodenal fistula complicating peptic ulceration. *Arch Surg* 1980;115:194-8.
- Fitzgibbons TJ, Green G, Silberman H et al. Management of Crohn's disease involving the duodenum, including duodenal cutaneous fistula. *Arch Surg* 1980;115:1022-8.
- MacDonald TM, Morant SV, Robinson GC, et al. Association of upper gastrointestinal toxicity of non-steroidal anti-inflammatory drugs with continued exposure: cohort study. *BMJ* 1997;315:1333-7.
- Lanas A, Serrano P, Bajador E, et al. Evidence of aspirin use in both upper and lower gastrointestinal perforation. *Gastroenterology* 1997;112:683-9.