

LETTERS TO THE EDITOR

EDİTÖRE MEKTUP

A case report of gastric antral vascular ectasia (watermelon stomach) as a rare cause of gastrointestinal bleeding

Gastrointestinal kanamanın nadir bir nedeni olarak gastrik antral vasküler ektazi (watermelon stomach) olgu sunumu

To the Editor,

Gastric antral vascular ectasia (GAVE) is a rare cause of recurrent gastric bleeding which can lead to development of transfusion-dependent iron deficiency anemia in some patients (1). A 77-year-old man was referred to our hospital for the etiologic diagnosis and treatment of recurrent gastrointestinal bleeding lasting for a year and causing anemia. He had endoscopic and histologic diagnosis of antral erosive gastritis. Laboratory investigation had revealed iron deficiency anemia with hemoglobin level of 9.8 g/dl and positive occult blood in stool. Serum levels of vitamin B12, gastrin, and complement were normal. Upper gastrointestinal endoscopic reexamination in our unit revealed the characteristic endoscopic appearance of GAVE with intensely red stripes radiating to the pylorus on antrum (Figure 1). Histopathological findings of the endoscopic biopsy were hyperplastic gastric foveolae characterized by intestinal metaplasia and numerous, dilated blood vessels at submucosa, some of which contained organizing thrombi. Ultrasonography, Doppler ultrasonography and computerized tomography (CT) showed no evidence of any tumoral or parenchymal disease of intra-abdominal organs. The patient underwent antrectomy, Billroth I anastomosis, and bilateral truncal vagotomy. Histopathologic examination of specimens confirmed the diagnosis of GAVE. Additionally, on three separate foci, gastric carcinoma invading the submucosa was also detected. One month after the operation, his physical and endos-

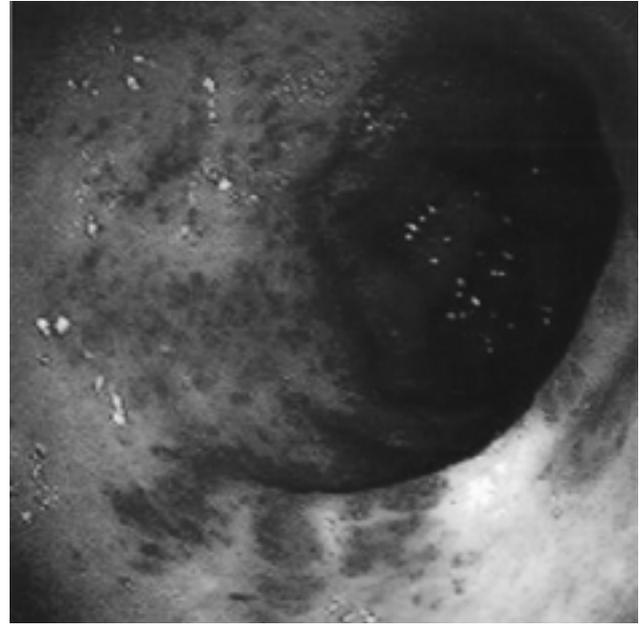


Figure 1. Gastroscopic appearance showing longitudinal erythematous stripes resembling the stripes of a watermelon

scopic examinations were normal with a hemoglobin value of 11.8 g/dl.

Gastric antral vascular ectasia (GAVE) is a rare cause of recurrent gastric bleeding which can lead to development of transfusion-dependent iron deficiency anemia in some patients (1). Approximately 30% of the patients with GAVE syndrome have cirrhosis. The classic non-cirrhotic patient with GAVE is a middle-aged female (5). At the time of diagnosis, patients with GAVE frequently have chro-

Address for correspondence: Sefa GÜLİTER
Emek Mah. 78. Sok. 3/8, 06510 Çankaya, Ankara, Turkey
Phone: +90 312 222 56 21 • Fax: +90 318 225 28 19
E-mail: sguliter@hotmail.com (referred)

Manuscript received: 28.03.2005 **Accepted:** 19.07.2005

nic significant blood loss often resulting in transfusion dependency (5). GAVE may be suspected as "gastritis" due to red mucosa, or may not be recognized due to blood in antrum or because of paleness of mucosa due to hypoperfusion (13). Moreover, GAVE may be missed on histopathologic examination (10). Although the etiology of GAVE syndrome remains unknown, some authors have suggested mechanical stress with the prolapse of antral mucosa through the pylorus (3), and the local release of vasoactive substances, such as vasoactive intestinal peptide and 5-hydroxytryptamine (16).

Several therapeutic modalities, depending upon the severity of disease, have been used for the tre-

atment of GAVE. In many cases, oral or parenteral iron supplementation may be sufficient; however, transfusion-dependent patients require medical, endoscopic or surgical treatment (1). Many authors agree that surgical treatment is the only curative therapeutic modality in GAVE. Antrectomy by Billroth I anastomosis is the most commonly used procedure (31).

Our case emphasizes that GAVE should be remembered as an uncommon cause of recurrent upper gastrointestinal bleeding or iron deficiency anemia. The possibility of coexistence with gastric carcinoma, as in our case, should also be kept in mind.

REFERENCES

1. Novitsky YW, Kercher KW, Czerniach DR, Litwin DE. Watermelon stomach: pathophysiology, diagnosis, and management. *J Gastrointest Surg* 2003; 7: 652-61.
2. Gostout CJ, Viggiano TR, Ahlquist DA, et al. The clinical and endoscopic spectrum of the watermelon stomach. *J Clin Gastroenterol* 1992; 15: 256-63.
3. Barnett JL. Vascular ectasia of the gastric antrum. *N Engl J Med* 1998; 339: 164-5.
4. Jensen DM, Chaves DM, Grund KE. Endoscopic diagnosis and treatment of watermelon stomach. *Endoscopy*. 2004; 36: 640-7.
5. Jabbari M, Cherry R, Lough JO, et al. Gastric antral vascular ectasia: the watermelon stomach. *Gastroenterology* 1984; 87: 1165-70.
6. Lowes JR, Rode J. Neuroendocrine cell proliferations in gastric antral vascular ectasia. *Gastroenterology* 1989; 97: 207-12.
7. Sebastian S, O'Morain CA, Buckley MJ. Review article: current therapeutic options for gastric antral vascular ectasia. *Aliment Pharmacol Ther* 2003; 18: 157-65.

Sezai LEVENTOĞLU¹, Sefa GÜLİTER²,
Nusret AKYÜREK¹, Bülent MENTEŞ¹,
Fahri YAKARYILMAZ², Ayşe DURSUN³,
Yeşim BAYOĞLU³, Ahmet GÖRGÜL⁴

¹Department of Surgery, ²Department of Pathology,

⁴Department of Gastroenterology, Gazi University School of Medicine, Ankara,

³Department of Gastroenterology, Kırıkkale University School of Medicine, Kırıkkale