A Rare Cause of Massive Upper Gastrointestinal Bleeding: Letter to the Editor

Massif Üst Gastrointestinal Kanamanın Nadir Bir Nedeni

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Acute upper gastrointestinal bleeding is a common indication for upper gastrointestinal endoscopy, with a large audit reporting 14% mortality.[1,2] Erosion of the gastroduodenal artery (branch such as the anterior and posterior superior pancreaticoduodenal arteries) is the most common cause of nonvariceal upper gastrointestinal hemorrhage. Gastrointestinal bleeding from hepatic artery origin is rare.[3,4] We report a case with penetrating duodenal ulcer resulting in massive gastrointestinal tract hemorrhage from a ruptured pseudoaneurysm of the hepatic artery.

A 75-year-old man was admitted to emergency room with massive upper gastrointestinal hemorrhage. The patient had a past medical history of duodenal ulcer and diabetes mellitus with neuropathy for 20 years. The patient had taken nonsteroidal antiinflammatory drugs. Upper gastrointestinal endoscopy revealed duodenal bulb deformity with deep penetrating ulcer over anterior wall five months ago. Laboratory tests indicated haemoglobin 5 g/dL (13-15 g/dL), total leukocyte count 12000 cells/cc (4000–11000 cells/cc). Platelet count and prothrombin time were normal. He was resuscitated with intravenous fluids, blood transfusions (10 units) and started on parenteral proton pump inhibitors. As bleeding persisted and patient's hemodynamic state was unstable despite 10 units of packed bed blood cells and the hemoglobin improved to 9 g/dL. After resuscitation he underwent an upper gastrointestinal endoscopy, which showed that the oesophagus was normal, the stomach was full of blood and blood clots. Due to a large amount of hemorrhage in the duodenum with adherent clots, the exact source of bleeding could not be identified and the patient was referred to emergency operation. Operative finding showed hepatic artery was adhered to the duodenum which had a 4 x 2 cm ulcer with a perforation on the anterior wall of the first portion and hepatic artery was eroded. This was diagnosed by surgery and treated subsequently by surgical intervention with hepatic artery ligation. Duodenal perforation was repaired primarily and covered with an omental patch. Postoperatively, he was kept

nil by mouth and given parenteral crystalloids, antibiotics and proton pump inhibitors. He was then started on oral feeds and discharged after a total hospital stay of 2 weeks. Six months later on follow-up he was doing well except for an incisional hernia of his operative wound.

In the majority of cases of upper gastrointestinal hemorrhage related to duodenal ulcer disease as it is the major source of blood supply to the first part of the duodenum. The increase in *Helicobacter pylori* infection and use of the non-steroidal anti-inflammatory drugs increase the incidence of upper gastrointestinal system bleeding.[5] Duodenal ulcer hemorrhage resulting from erosion of the supraduodenal branch of the left hepatic artery. The supraduodenal artery most commonly arises from the gastroduodenal artery (55%) and in approximately 9% of cases this artery arises from the left hepatic artery. Upper gastrointestinal system bleeding is a lifethreatening complication of gastrointestinal diseases resulting in most of the hospital admissions requiring immediate treatment. With the introduction of endoscopy, the efficacy of diagnosis and treatment has been greatly improved. In case of massive bleeding or failure to respond medical and endoscopic treatment, emergency surgery should be established as in our case.[6]

In conclusion, we describe massive duodenal ulcer hemorrhage resulting from erosion of the supraduodenal branch of the left hepatic artery. This arterial branch is not a well-known variation and is rarely recognized as a source of duodenal bleeding. Therefore, careful evaluation of the entire arterial supply, particularly from unusual sources, is important.

REFERENCES

1. Enestvedt BK, Gralnek IM, Mattek N, Lieberman DA, Eisen G. An evaluation of endoscopic indications and findings related to nonvariceal upper-GI hemorrhage in a large multicenter consortium. Gastrointest Endosc 2008;67(3):422-9.
2. Mızrak D, İdilman R. [Peptic ulcer bleeding]. Turkiye Klinikleri J Gastroenterohepatol-Special Topics 2008;1(2):10-3.
3. Kapoor BS, Berscheid B, Saddekni S. Supraduodenal branch of the left hepatic artery: a rare cause of bleeding duodenal ulcer. Cardiovasc Intervent Radiol 2009;32(4):789-91.
4. Akdoğan RA, Arslan M. [Management of nonvariceal upper gastrointestinal bleeding]. Tur kiye Klinikleri J Surg Med Sci 2006;2(15):9-13.
5. Bobrzyński A, Beben P, Budzyński A, Bielański W, Plonka M, Konturek S. Incidence of complications of peptic ulcers in patients with Helicobacter pylori (Hp) infection and/or NSAID use in the era of Hp eradication. Med Sci Monit 2002;8(8):554-7.
6. Lau JY, Sung JJ, Lam YH, Chan AC, Ng EK, Lee DW, et al. Endoscopic retreatment compared with surgery in patients with recurrent bleeding after initial endoscopic control of bleeding ulcers. N Engl J Med 1999;340 (10):751-6.