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

Massive Ust Gastrointestinal Kanamanın Nadir Bir Nedeni

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 hemoglobin 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 red 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. 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.

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**