Endoscopic management of a rare cause of upper gastrointestinal bleeding: gastric polypoid extramedullary hemopoiesis

Acute upper gastrointestinal hemorrhage remains a common emergency with annual incidence between 50 and 150 hospital accesses/100,000 population/year and a mortality rate of 7–10% [1]. Endoscopy is the first option both in diagnosis and treatment.

A 35-year-old man, suffering from Cooley disease and with a history of splenectomy, was hospitalized for two recent episodes of hematemesis with severe anemia. Emergency esophagogastroduodenoscopy revealed a protruding, ulcerated 4-cm mass in the gastric fundus; the overlying, nonulcerated, mucosa appeared normal (Fig. 1). Biopsies were not performed because of the risk of bleeding. A computed tomography (CT) scan confirmed the presence of a solid, partially calcified, gastric mass, and endoscopic ultrasound (EUS) showed a rounded, well defined, submucosal hypoechogenic lesion. After multidisciplinary discussion, an initial endoscopic approach was decided.

A pre-cut needle was used to create a perilesional perimeter which facilitated the insertion of a diathermic loop. The combined and alternate use of these two instruments enabled precise and complete excision of the entire mass (Fig. 2), despite difficulties as a result of the lesion’s intense vascularization and solid consistency. Endoscopic clips were positioned to control two hematic leaks. Histology showed a fibrous and partly calcified mass with pools of erythrocytes and intermixed red and white blood cell precursors (Fig. 3, Fig. 4) corresponding to gastric polypoid extramedullary hematopoiesis.

Extramedullary hematopoiesis is a well described compensatory response to hemoglobinopathies, insufficient medullary hematopoiesis, myelofibrosis and neoplastic replacement, or destruction of the bone marrow. Gastrointestinal localizations are extremely rare and only four cases have been reported either as a single mass [2, 3] or multiple localizations [4, 5]. At 1-month and 6-month follow-up in our patient, the treated region appeared as a retracted scar-like area (Fig. 5), and after 3 years, there was complete healing.

In conclusion, our study describes the first case of gastric polypoid extramedullary hematopoiesis complicating Cooley disease to be successfully treated with an endoscopic approach.

Competing interests: None
Fig. 5 Follow-up esophagogastroduodenoscopy at 1 month showing a retracted, scar-like area at the site of the earlier endoscopic resection. No lesion or bleeding is seen.

References
4 Palmer GM, Shortsleeve MJ. Gastric polyps due to extramedullary hematopoiesis. Am J Roentgenol 1998; 171: 531

Bibliography
DOI http://dx.doi.org/10.1055/s-0034-1390919
Endoscopy 2014; 46: E674–E675
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author
Federica Grillo, MD
Pathology Unit
University of Genoa and
IRCCS AOU San Martino IST
Department of Surgical Sciences
and Integrated Diagnostics (DISC)
Largo Rosanna Benzi, 10
Genoa
16132 Italy
Fax: +39-010-5556605
federica.grillo@unige.it

Paola Cognein1,*, Valerio Belgrano2,*, Luca Mastracci3,4, Francesca Pitto3, Alberto Fasoli1, Franco De Cian2,4, Federica Grillo3,4
1 Gastroenterology and Digestive Endoscopy Unit, IRCCS AOU San Martino IST Genoa, Genoa, Italy
2 Oncologic Surgery Unit, Department of Surgical Sciences and Integrated Diagnostics (DISC), University of Genoa, Genoa, Italy
3 Pathology Unit, Department of Surgical Sciences and Integrated Diagnostics (DISC), University of Genoa, Genoa, Italy
4 IRCCS AOU San Martino IST Genoa, Genoa, Italy

* These authors contributed equally to this work.