Upper Gastrointestinal Bleeding

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KEYWORDS

• Upper gastrointestinal bleeding • Ulcer disease • Gastroesophageal varices
• Endoscopy

KEY POINTS

- Upper gastrointestinal (GI) bleeding remains a commonly encountered diagnosis for acute care surgeons.
- Initial stabilization and resuscitation of patients is imperative.
- Stable patients can have initiation of medical therapy and localization of the bleeding, whereas persistently unstable patients require emergent endoscopic or operative intervention.
- Minimally invasive techniques have surpassed surgery as the treatment of choice for most upper GI bleeding.

INTRODUCTION

Acute gastrointestinal (GI) bleeding can run the gamut from mild to immediately life-threatening. It has an incidence of 100 cases per 100,000 population per year, and remains a common cause of hospitalization and consultation among acute care surgeons.

GI bleeding is defined as upper or lower, based on the relationship to the ligament of Treitz. The source in upper GI bleeding is proximal to the ligament of Treitz and is associated with a mortality of 6% to 10%. Mortality is often based on the underlying cause as well as patient comorbidities. Sung and colleagues[1] determined that most patients with bleeding from peptic ulcer disease (80%) died of non–bleeding-related causes.

BLOOD SUPPLY OF THE FOREGUT

Upper GI bleeding can involve the esophagus, stomach, and/or duodenum. These structures have a rich vascular supply that can cause life-threatening exsanguination if large vessels are disrupted.

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Esophagus

The upper esophageal sphincter and cervical esophagus get their blood supply from the inferior thyroid artery. The thoracic esophagus is supplied by paired aortic esophageal arteries or branches of the bronchial arteries while the distal esophagus and lower esophageal sphincter are perfused by the left gastric artery and left phrenic artery (Fig. 1).

Stomach

The stomach has a redundant blood supply from multiple vessels. The lesser curvature contains the right and left gastric arteries while the greater curve is supplied by

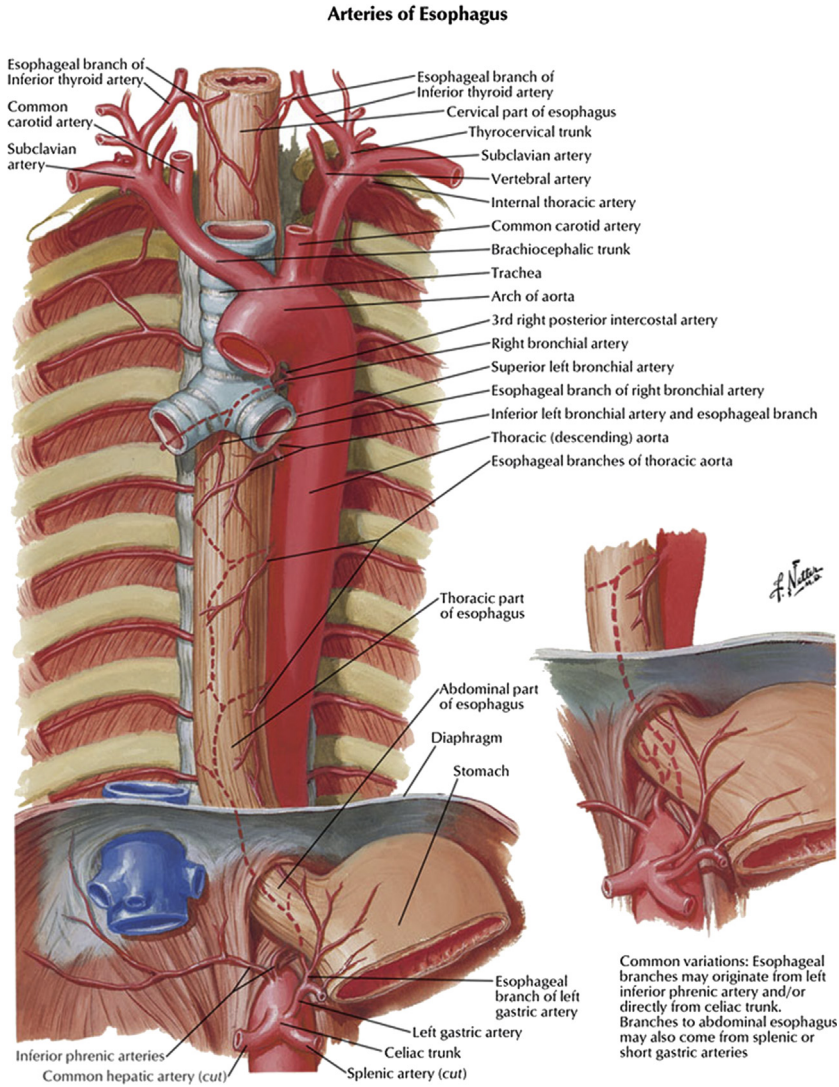

Fig. 1. Arteries of the esophagus. (Netter illustration from www.netterimages.com. © Elsevier Inc. All rights reserved.)