Endoscopic bypass of gastric outlet obstruction after spontaneous celiac artery dissection

Reddy, Shravani MD[2], Abel, William MD[1] and Kesar, Vivek MD[2]
Carilion Clinic, Department of Internal Medicine[1], Division of Gastroenterology[2]
Virginia Tech Carilion School of Medicine, Roanoke, VA

Introduction

Spontaneous isolated celiac artery dissection (SICAD) is a unique pathology with unclear management guidelines. Complications include hematoma formation and rarely intestinal ischemia. Gastric outlet obstruction (GOO) may occur because of luminal narrowing from ischemic duodenitis or extrinsic compression from hematoma. EUS-guided gastroenterostomy (EUS-GE) is an accepted approach in the management of malignant obstruction however currently there is no guidance for benign obstruction. We describe a case of SICAD complicated by GOO requiring bypass with EUS-GE.

Images

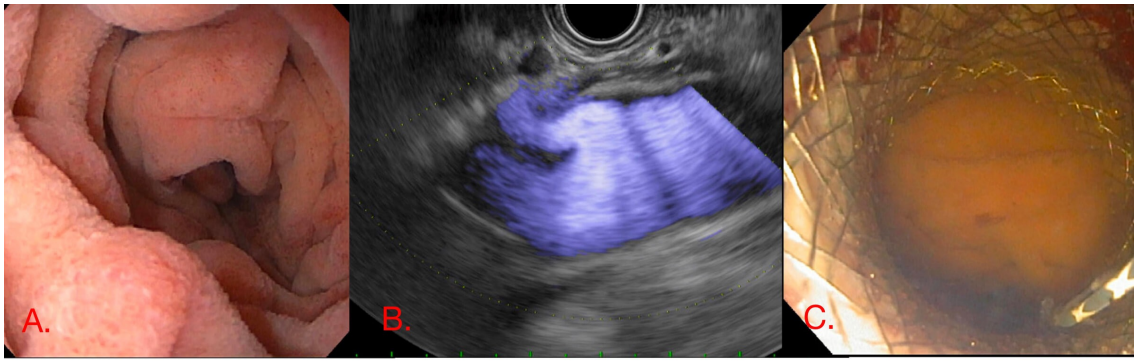

Image 1: Panel A. EGD with duodenal narrowing. B. EUS demonstrating celiac artery dissection. C. Lumen-apposing metal stent (LAMS)

Case

A 56 year-old man presented with a weeklong history of epigastric abdominal pain. A computed tomography angiography (CTA) of the abdomen demonstrated a 1.3cm dissection of the celiac artery with associated hemorrhage. He was managed with intravenous anti-hypertensive medications and discharged 2 days later. He returned in 1 week with intractable nausea and vomiting. Repeat CT abdomen demonstrated duodenitis, dilation of the stomach and proximal duodenum and resolving hemorrhage surrounding the celiac artery. Nasogastric decompression returned 1100ml bilious output. Esophagogastroduodenoscopy (EGD) demonstrated edematous mucosa within the proximal duodenum with luminal narrowing preventing passage of the scope (Image 1A). The decision was made to proceed with EGD-EUS. EUS demonstrated a dilated celiac artery with areas of hemorrhage within the celiac axis and adjacent to the duodenum (Image 1B) . After successful creation of an EUS-EUS-GE (Image 1C) the patient was discharged on oral intake a day later. Surveillance imaging 2 months later demonstrated improvement of hemorrhage.

Discussion

Our case Illustrates a rare case of GOO as a result of a hematoma causing duodenal compression. Until the recently, the only option for management for benign GOO was radical surgical intervention. Endoscopic management with either balloon dilation or intraduodenal stents are poor choices due to risk of perforation and durable patency is not guaranteed. Current guidelines do not provide recommendations on EUS-GE for benign etiologies of GOO. Small retrospective studies have illustrated success however prospective and randomized trials are needed to demonstrate efficacy and safety in benign causes of GOO.

EUS-GE should be considered in benign etiologies of GOO as an alternative or bridge to a radical surgical approach.