



Bleeding at Roux-en-Y jejunojejunal anastomosis after orthotopic liver transplantation

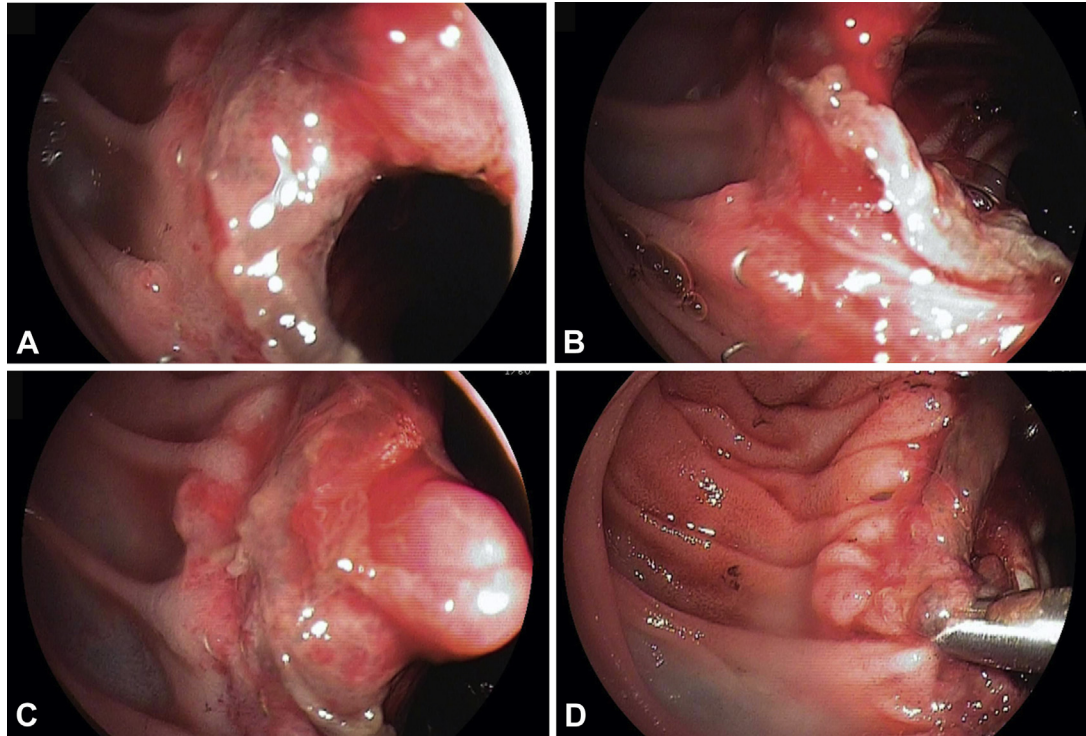


Figure 1. **A, B,** Double-balloon enteroscopic view of hemorrhagic appearance and active oozing at the jejunojejunal anastomosis 24 hours after Roux-en-Y hepaticojejunostomy creation. **C,** Epinephrine injected at the jejunojejunal anastomosis. **D,** Hemostatic clip placed at the jejunojejunal anastomosis.

A 14-year-old girl with a medical history of primary sclerosing cholangitis/autoimmune hepatitis overlap syndrome diagnosed at age 2, complicated by decompensated cirrhosis, underwent orthotopic liver transplantation (OLT). During OLT she underwent a standard Roux-en-Y hepaticojejunostomy in which the Roux limb was created by dividing the jejunum downstream from the ligament of Treitz.

Twenty-four hours after OLT, she experienced hematochezia and acute anemia, raising concern for a luminal bleed as an adverse event of hepaticojejunostomy formation. She was subsequently referred for double-balloon enteroscopy (Video 1, available online at www.VideoGIE.org). On anterior double-balloon enteroscopy, blood was visualized in the stomach, duodenum, and entire visualized jejunum. The jejunojejunal anastomosis was patent, with healthy-appearing mucosa, and an intact staple line with

visible sutures was seen (Figs. 1A and B). However, there was a hemorrhagic appearance to the jejunojejunal anastomosis, and active oozing was noted from it (Figs. 1A and B). A visible vessel with active spurting was seen, warranting dual therapy. The anastomosis was injected with epinephrine for hemostasis (Fig. 1C), and 1 hemostatic clip was successfully placed (Fig. 1D). The risk of perforation due to ischemia associated with epinephrine injection was appreciated, and thus the injection was cautiously delivered, with the intent to control the briskness of bleeding before clipping.

Upper-GI bleeding is one of the most common GI adverse events after liver transplantation. The most common causes include bleeding ulcers, enteritis, portal hypertensive lesions, and a bleeding Roux-en-Y anastomosis. Only around 5% of posttransplantation GI bleeds are

Written transcript of the video audio is available online at www.VideoGIE.org.

attributed to jejunojejunal anastomotic bleed. However, acute bleeding after OLT is most commonly the result of a portal hypertensive lesion or an anastomotic bleed. Anastomotic bleeding soon after transplantation can be attributed to increased portal and mesenteric pressures resulting from tissue healing and vascular remodeling. Intestinal edema after difficult anastomotic constructions can also contribute.

This case illustrates the effectiveness of endoscopy in treating an anastomotic bleed and avoiding surgical intervention. Reaching such an anastomosis is technically difficult and requires single-balloon versus double-balloon enteroscopy. Deep enteroscopy, when available, assists in the diagnosis and treatment at a major liver transplantation center. In addition, luminal GI bleeding immediately after Roux-en-Y creation should always raise suspicion for an anastomotic bleed.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

Chaitanya Allamneni, MD, Department of Internal Medicine, **Kondal Kyanam Kabir Baig, MD**, Division of Gastroenterology and Hepatology, Department of Medicine, **Stephen Gray, MD**, Department of Surgery, **Shajan Peter, MD**, Division of Gastroenterology and Hepatology, Department of Medicine, University of Alabama at Birmingham, Birmingham, Alabama, USA

Copyright © 2018 American Society for Gastrointestinal Endoscopy. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

<https://doi.org/10.1016/j.vgie.2018.03.012>

Twitter

Become a follower of *VideoGIE* on Twitter. Learn when new articles are posted and receive up-to-the-minute news as well as links to our latest videos. Search @VideoGIE on Twitter.