The Path of Least Resistance: A Case of the Lemmel

Hardeep S. Ahdi, DO; Assad Munis, DO; Asif Lakha, MD

Department of Internal Medicine, Division of Gastroenterology

Advocate Lutheran General Hospital

We are AdvocateAuroraHealth

Introduction:

- Lemmel Syndrome is defined as obstructive jaundice caused by a periampullary duodenal diverticulum (PAD) compressing the intrapancreatic common bile duct (CBD) with resultant bile duct dilatation and obstruction.
- Management is based on symptomatology (i.e., conservative management, endoscopic extraction of retained food debris, or surgery)
- We present a unique case of Lemmel Syndrome in a patient who suffered from recurrent obstructive jaundice and underwent a multimodality-based treatment with eventual relief.

Case Description

- 56-year-old obese female initially presented with right upper quadrant abdominal pain and jaundice for two days
- Physical exam was notable for right upper quadrant tenderness. Labs revealed total bilirubin 3 mg/dL. CBC was normal.
- MRCP revealed a 6 cm multiloculated mass near the pancreatic head/ampulla of Vater, with internal heterogeneity and multiple air-fluid levels and internally contiguous with duodenal lumen.
- An EGD with EUS revealed a large, non-bleeding periampullary diverticulum impacted with food debris which was extracted, and the jaundice resolved
- She developed recurrent obstructive symptoms, requiring a cholecystectomy, Roux-En Y hepaticojejunostomy, and gastric antrum resection with Roux-En Y BillRoth II gastrojejunostomy to divert food debris away from the diverticulum.
- She then developed stenosis at the hepaticojejunostomy requiring ERCP with dilation of the anastomosis, and stenting, as well as percutaneous transhepatic cholangiography, internal external biliary drain placement, lithotripsy of hepatic duct stones, and covered metal stent placement.
- Post treatment, the hepatic ducts' stone burden has been eliminated and the hepaticojejunostomy is now patent with good bile flow and the patient is now asymptomatic

Imaging:

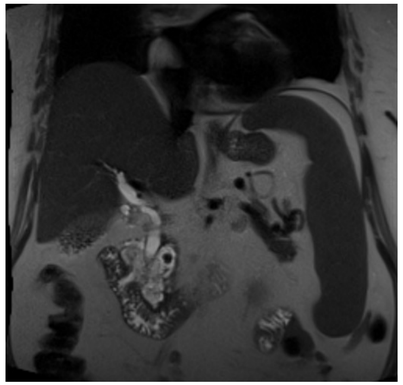

Figure 1: Initial MRI which shows duodenal diverticulum with biliary dilation consistent with Lemmel Syndrome

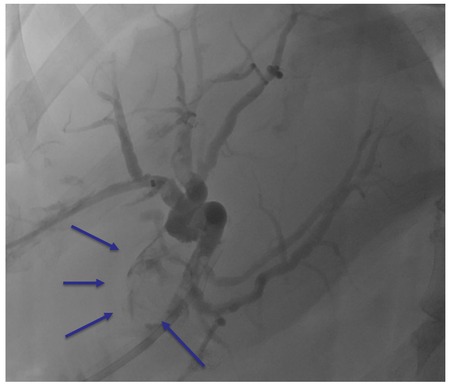

Figure 2: Initial Cholangiogram: stent within left hepatic duct as well as central right hepatic duct appearing goblet shaped with stones (arrows)

Figure 3: Subsequent imaging reveals right hepatic duct status post stone extraction, appearing relatively normal (compare with Figure 2)

Figure 4: A retrograde cholangiogram showing patent duct post hepatic duct clearance by IR

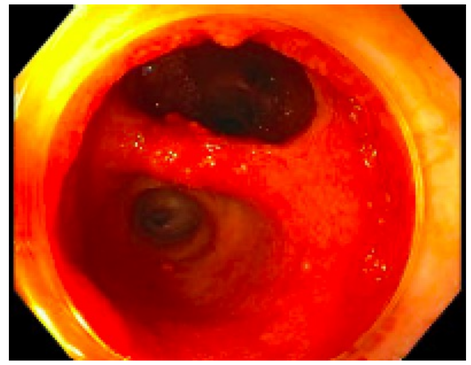

Figure 5: A follow up ERCP with good response noted with dilation by stent and intrahepatic ducts free of debris, and it showed we were successful

Discussion:

- Treatment of Lemmel Syndrome incorporates a variety of modalities.
- A conservative approach is usually preferred, but invasive intervention may sometimes be required.
- The most definitive approach would be a Whipple procedure, which carries a relatively high morbidity and mortality risk.
- Our case portrays an unusual multidisciplinary based approach which provided the patient relief using a combination of endoscopic, interventional radiology, and minimally invasive surgical treatment