

Lemmel Syndrome: A “Tic”ing Time Bomb!



MaryKate Kratzer MD, Karissa Lambert MD, Prashant Mudireddy MD

Department of Gastroenterology, Hepatology & Nutrition
ECU Health Medical Center, Greenville, NC



BACKGROUND:

What is Lemmel Syndrome?

A gastrointestinal condition characterized by compression and upstream dilation of the intrapancreatic common bile duct by a periapillary diverticula (“tic”).

How common is Lemmel Syndrome?

While duodenal diverticula can occur in up to 20% of patients, only 1-5% of these are located within or in close proximity to the Ampulla of Vater.

How does Lemmel Syndrome present?

The vast majority of duodenal diverticula are asymptomatic. Rare cases can manifest as:

- Abdominal pain
- Jaundice
- Pancreatitis
- Cholangitis

How is Lemmel Syndrome treated?

Management is not standardized due to variable presentation and rarity of the condition.

Images (L to R): 1. Duodenal diverticulum with impacted food/debris 2. Duodenal diverticulum with ulceration 3. Duodenal diverticulum after removal of debris 4. Congestion/ulceration surrounding intradiverticular ampulla

CASE SUMMARY:

Case: A 58 year old Caucasian Female presented for evaluation of intermittent severe epigastric abdominal pain and associated elevated liver enzymes over the last several months. During each episode, liver enzymes were mildly elevated and then returned to normal once the pain subsided.

On her third occurrence of abdominal pain, patient noted scleral icterus, prompting an ED visit. Laboratory studies at that time showed **ALT 464, AST 664, Alkaline Phosphatase 184, total bilirubin 1.8 and lipase 137**. CT abdomen with IV contrast showed common bile duct dilation with upstream intrahepatic ductal dilation. Although pain improved, her liver enzymes remained persistently elevated therefore she was referred for endoscopic evaluation.

Endoscopy: Upper endoscopy showed a large periapillary duodenal diverticulum with a congested intradiverticular ampulla. There was a significant amount of food and debris in the diverticulum with a large area of ulceration related to food stasis. Food and debris were removed with a Roth net. Endoscopic ultrasound showed a dilated common bile duct to 10mm without any associated stones or masses. Two weeks later at follow-up liver enzymes were normal.

DISCUSSION/CONCLUSIONS:

Lemmel Syndrome is a rare cause of intermittent or subacute obstructive jaundice, as seen in this patient, where an impacted duodenal diverticulum was the cause of biliary obstruction.

History, laboratory studies, and imaging of the biliary tree in these cases may be more suggestive of choledocholithiasis or other more common causes of obstructive jaundice.

Lemmel Syndrome should be considered in the differential diagnosis in these patients, especially in those with the presence of a duodenal diverticulum to avoid delay in management.

