



## Lemmel Syndrome

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### Abstract

Lemmel syndrome was first described in 1934 by Lemmel. It occurs when a duodenal diverticula causes obstructive jaundice due to mechanical obstruction of the common bile duct. A 43-years old male patient presented with features of obstructive jaundice. Serum bilirubin, alkaline phosphatase and liver enzymes were raised. Imaging studies revealed presence of duodenal diverticula in second part near ampulla causing obstructive jaundice.

**Keywords:** Obstructive jaundice; Duodenal diverticula; Lemmel syndrome

### Introduction

There was no history medical jaundice. Laboratory evaluation revealed raised serum bilirubin level. Alkaline phosphatase, serum alanine transaminase and aspartate aminotransferase were also elevated. The remaining laboratory values were normal.

### Case Presentation

A 43-years old male presented to surgical emergency with yellowish discoloration of skin and sclera and anorexia for 15 days. There was no history medical jaundice. Laboratory evaluation revealed raised serum bilirubin level. Alkaline phosphatase, serum alanine transaminase and aspartate aminotransferase were also elevated. The remaining laboratory values were normal. Barium meal study showed presence of duodenal diverticula in second part near ampulla of vater (Figure 1). Contrast enhanced computed tomography showed duodenal diverticula arising from second part of duodenum causing compression of Common Bile Duct (CBD), dilatation of CBD and intrahepatic biliary radical dilatation (Figure 2).

### Discussion

Lemmel syndrome is a rare cause of acute abdominal pain with jaundice [1-3]. In this syndrome, the presence of juxtapapillary duodenal diverticulum causes mechanical obstruction of the common bile duct. Patients suffering from Lemmel syndrome have a history of recurrent episodes of severe upper abdominal pain for which they have seek emergency medical care quite frequently. Misdiagnosis is common. Ultrasonography (US) may be helpful in evaluation of upstream dilatation of extra-/intra-hepatic biliary duct. Barium meal study shows presence of

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**Figure 1:** Barium meal study showing diverticula in second part of duodenum.



**Figure 2:** CECT showing diverticula in second part of duodenum with dilatation of common bile duct.

duodenal diverticula. Contrast Enhanced Computed Tomography (CECT) is the imaging modality of choice for the diagnosis. CECT typically shows periampullary duodenal diverticula compressing the intrapancreatic portion of the common bile duct. Timely diagnosis is important for proper management of Lemmel syndrome.

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