Obstructive jaundice from portal biliopathy following EUS guided glue/coil embolization of duodenal varices

Vijay S Are[1], Nabeel Azeem[1], Guru Trikudanathan[1]

[1] Department of Gastroenterology and Hepatology, University of Minnesota, Minneapolis, MN.

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INTRODUCTION

Portal biliopathy refers to abnormalities in intra or extrahepatic bile ducts and gallbladder associated with extrahepatic portal vein obstruction and consequently elevated portal pressures. Distended venous collaterals from longstanding portal venous obstruction can lead to compression of the bile duct and thereby portal biliopathy.

We hereby describe an unusual presentation of portal biliopathy following EUS guided glue and coil embolization of duodenal varices.

CASE DESCRIPTION

57-year-old male with a history of duodenal resection with duodenojejunal anastomosis due to a bleeding arteriovenous malformation presented with hematemesis to an outside hospital. The source was unclear on EGD and empiric esophageal variceal banding followed by gastroduodenal artery embolization was performed.

Due to continued bleeding patient was transferred and repeat EGD showed actively bleeding varices at the duodenojejunal anastomosis for which variceal banding was performed. CT imaging showed portal vein thrombosis with numerous collateral vessels at the anastomosis and extrahepatic bile duct. Due to continued bleeding and inability to recanalize the portal vein, EUS guided coiling and embolization of ectopic varices was performed. This was done carefully to avoid extravasation into the bile duct .

FIGURES

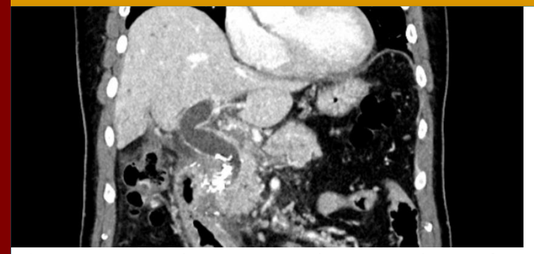

Figure 1a: Coronal CT imaging showing evidence of extravasation of glue/coil material in the lower part of the bile duct with dilation of portion of bile duct upstream to this

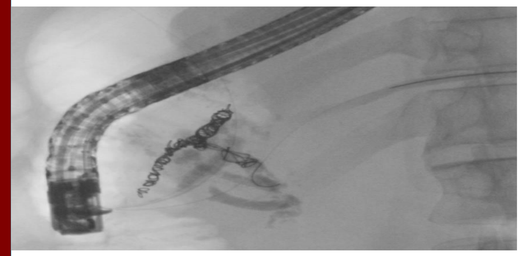

Figure 1b: Cholangiogram during ERCP showing evidence of extravasated material in the lower part of the common bile duct with non-opacification of upper part of bile duct indicating obstruction

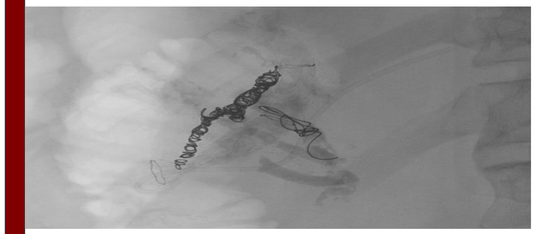

Figure 1c: Fluoroscopy image after bile duct sweep and placement of covered metal stent.

CASE DESCRIPTION

Bleeding had stopped and patient did well for several weeks before presenting with epigastric pain, nausea, vomiting, acholic stool and jaundice. Labs were significant for elevated LFTs and lipase levels. CT imaging showed embolization material protruding common bile duct with marked biliary dilation. **(Figure 1a).** ERCP showed stenosis at the lower third of the bile duct **(Figure 1b)**.

Biliary sphincterotomy performed and bile duct swept with a balloon resulting in removal of debris and glue material from the duct. Finally, a covered metal stent was placed across the distal common bile duct **(Figure 1c).** Post procedurally, abdominal pain and liver tests improved**.** Patient was discharged with plans for repeat EUS and ERCP in 6-8 weeks for variceal surveillance and biliary stent removal.

DISCUSSION

EUS guided glue injection/coil embolization of pericholedochal varices should be avoided. When inevitable as above, endoscopists should know that, even though there may not be any visible extravasation of glue/coil at the time of procedure, subsequent reorganization, fibrosis and glue/coil extrusion can lead to bile duct obstruction. Patients should be warned and assiduously followed.