

Endoscopic ultrasonography-guided bi-lateral biliary drainage: A case series study

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Introduction: Biliary obstruction is preferentially managed by endoscopic retrograde cholangiopancreatography (ERCP). However, after ERCP failed, alternatives include percutaneous transhepatic drainage, surgery and more recently, endoscopic ultrasonography (EUS)-guided hepaticogastrostomy. The limitation of this technique is that the drainage is restricted to the left side. The aim of this study is to describe a new method of drainage of both hepatic ductal systems by hepaticogastrostomy in patients with hilar obstruction.

Results: Nine prospectively patients were included, all with hilar obstruction (metastasis of a pancreatic adenocarcinoma $n = 4$, cholangiocarcinoma $n = 1$, gallbladder cancer $n = 2$ and metastasis from a pancreatic neuroendocrine tumor $n = 2$). A total of four patients had previously Whipple surgery and the others five had duodenal involvement by the tumor. The topography of the stenosis varied from Bismuth type 2 ($n = 7$) and hilar infiltration in the others two. All of them were submitted a three-step drainage. The first one consisted in a transgastric EUS-guided puncture of the left-side bile duct with a 19 gauge needle, insertion of a 0.0035 inch guide wire which was positioned at the right biliary tree crossing the bile bifurcation. After a dilatation with 6 Fr cystotome, a non-covered self-expandable metal stent was placed communicating the right and left biliary ducts. Finally, a second stent, partially covered, was inserted at the left biliary duct, with the distal part inside the previously stent and the proximal edge positioned at the stomach. Successful drainage was observed in seven patients, two of them presented abdominal pain during the first 72 h. One patient developed sepsis and death 7 days after the procedure and the other one had drainage failure. Jaundice was reduced significantly in seven patients and a chemotherapy was started in 6/7 patients

Conclusion: This pilot study shows the feasibility of this new technique to drain the right biliary duct in patients with hilar obstruction, with few major complications rates.

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The authors declare: No significant relationship.