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The Channel

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New Evolution® Biliary Eases Stent Placement

"The process of placing a metal stent is much more difficult than a plastic biliary stent. As a fellow, every opportunity to place a metal biliary stent is very important. The plastic stent does not expand or need to be deployed, so essentially you place the stent where it needs to be and the process is complete. Since the metal stent is expanding, it needs to be deployed in the correct position and that position needs to be held during deployment.

"The Evolution stent makes this process easier as it is controlled in its release and you can adjust during deployment. There is a clear point of no return in the deployment process. The markings are very clear and the deployment process is much easier given the control you have over the stent."

– Nilay Kavathia, MD

Brenda Dennert, MD
Gastroenterologist

Nilay Kavathia, MD
GI Fellow

Banner Good Samaritan
Phoenix, AZ

Restoring Biliary Flow with the Evolution Metal Stent

Brenda Dennert, MD, and GI Fellow Nilay Kavathia, MD, share their clinical case experience with the new Evolution Controlled-Release Biliary Uncovered Stent.

Indications

The patient is 59 years old with metastatic pancreatic adenocarcinoma, which was recently diagnosed. The patient was seen by Oncology and was planned for palliative chemotherapy. The patient was told that the chemotherapy would only be administered if his bilirubin were less than 3.0 mg/dl. The patient's pancreatic cancer was causing biliary obstruction with a bilirubin level of 7.2 gm/dl with debilitating pruritus.

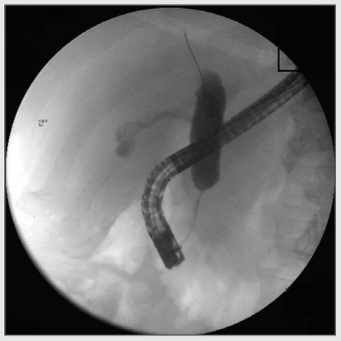

Figure 1

Devices and Accessories

For the ERCP, a standard sphincterotome with a .035" Acrobat Calibrated Tip Wire Guide was used to cannulate the common bile duct. An Evolution Biliary Controlled-Release uncovered stent that was 8 cm was placed into the common bile duct.

Presentation and Diagnosis

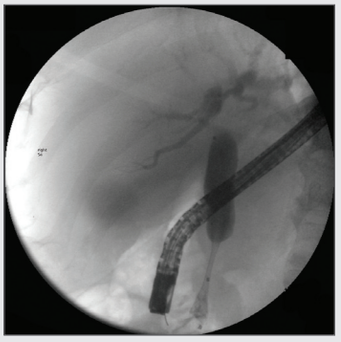

Figure 2

The patient was otherwise healthy until admission to the hospital after his family noticed the patient was "turning yellow." The patient reported a 20-pound weight loss and some fatigue but otherwise felt well. Initial lab work showed a significantly elevated bilirubin at 8.6 gm/dl and transaminases consistent with biliary obstruction. A CT scan showed a 2.7 x 2.9 x 3.0 cm lesion in the head of the pancreas suspicious for pancreatic malignancy. There were also metastatic lesions seen in the liver. As the work up continued, the patient was noted to have a significantly elevated CA19-9 at 2156. A biopsy of the liver lesion confirmed that this was stage IV pancreatic adenocarcinoma.

Given the metastatic nature of the cancer, surgical options were not present. The patient was seen by Oncology for palliative chemotherapy. The oncology team stated the patient was a candidate for palliative chemotherapy as long as bilirubin remained less than 3 gm/dl. The patient was presented options of percutaneous biliary drain or endoscopic stenting of the common bile duct. It was unlikely that a plastic biliary stent would be adequate as it would likely migrate or clog. The patient was scheduled for an uncovered metal stent.

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See Dr. Mankanwal Singh Sachdev's Evolution Biliary case on page 3

New Evolution Biliary, continued from page 1

Procedure

The patient was given prophylactic antibiotics and brought to the endoscopy suite. The procedure was performed under general anesthesia. Using standard ERCP technique, the endoscope was positioned near the ampulla, which was normal appearing without any bile flow noted. The common bile duct was cannulated with a standard sphincterotome and a .035" Acrobat Calibrated Tip Wire Guide. This wire was chosen as the bile duct was significantly decompressed and accessing the proximal duct would likely be difficult. Once the wire was seen advancing into the intrahepatic ducts, a cholangiogram was obtained. The cholangiogram showed a significantly dilated proximal CBD at 18 mm without contrast seen in the distal 5 cm. A small sphincterotomy was performed without any bile flow noted.

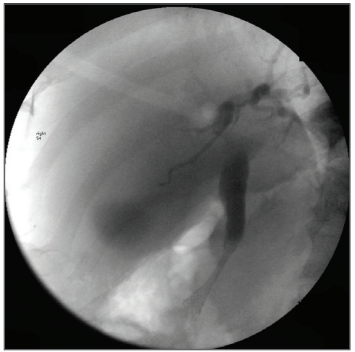

Figure 3

An 8 cm Evolution Controlled-Release uncovered biliary stent was advanced into the common bile duct over the wire guide. The stent was positioned to traverse the stricture and slowly deployed using the controlled-release mechanism. Under fluoroscopic guidance the stent was re-positioned to an optimal position and then deployed. There was a significant gush of dark bile and biliary debris and stones.

Outcome

The procedure was technically successful as biliary flow was restored. There was an immediate response in terms of serum bilirubin and symptomatic pruritus. The patient was able to start palliative chemotherapy and on most recent labs 4 months post procedure the bilirubin remains normal. The patient was very satisfied with the procedure. ■