

CASE REVIEW

Successful relief of biliary obstruction with
normalization of serum bilirubin

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GORE® VIABIL®
Biliary Endoprosthesis

CASE TAKEAWAYS



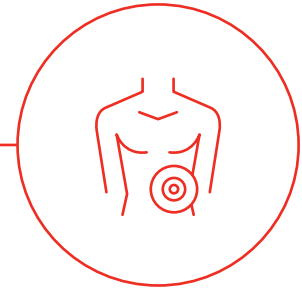
This case illustrates the benefits of important design features in a clinical setting:

- The lack of foreshortening (*Figure 1*) of the device enabled placement of the stent precisely with the proximal end below the bifurcation:
 - Prior surgical resection left little room below the biliary bifurcation, with the short residual common hepatic duct anastomosed to the jejunum.
 - This prevented obstruction of one side of the biliary tree.
- Secondly, the stent can be passed through a longer length smaller channel endoscope (pediatric colonoscope).

Figure 1: GORE® VIABIL® Biliary Endoprosthesis



PATIENT CHARACTERISTICS



- **Patient gender:** Female
- **Patient age:** 66
- **Patient condition(s)/diagnosis:** Adenocarcinoma of the pancreatic head cancer
- **Patient revisions/history:** Whipple operation (pancreaticoduodenectomy)

CASE DETAILS



- **Presenting issue:** Malignant biliary obstruction in the setting of post-surgical anatomy.
- **Description of treatment approach:** An endoscopic retrograde cholangiopancreatography (ERCP) was initially attempted with a small caliber colonoscope (pediatric colonoscope), however there was an obstruction.

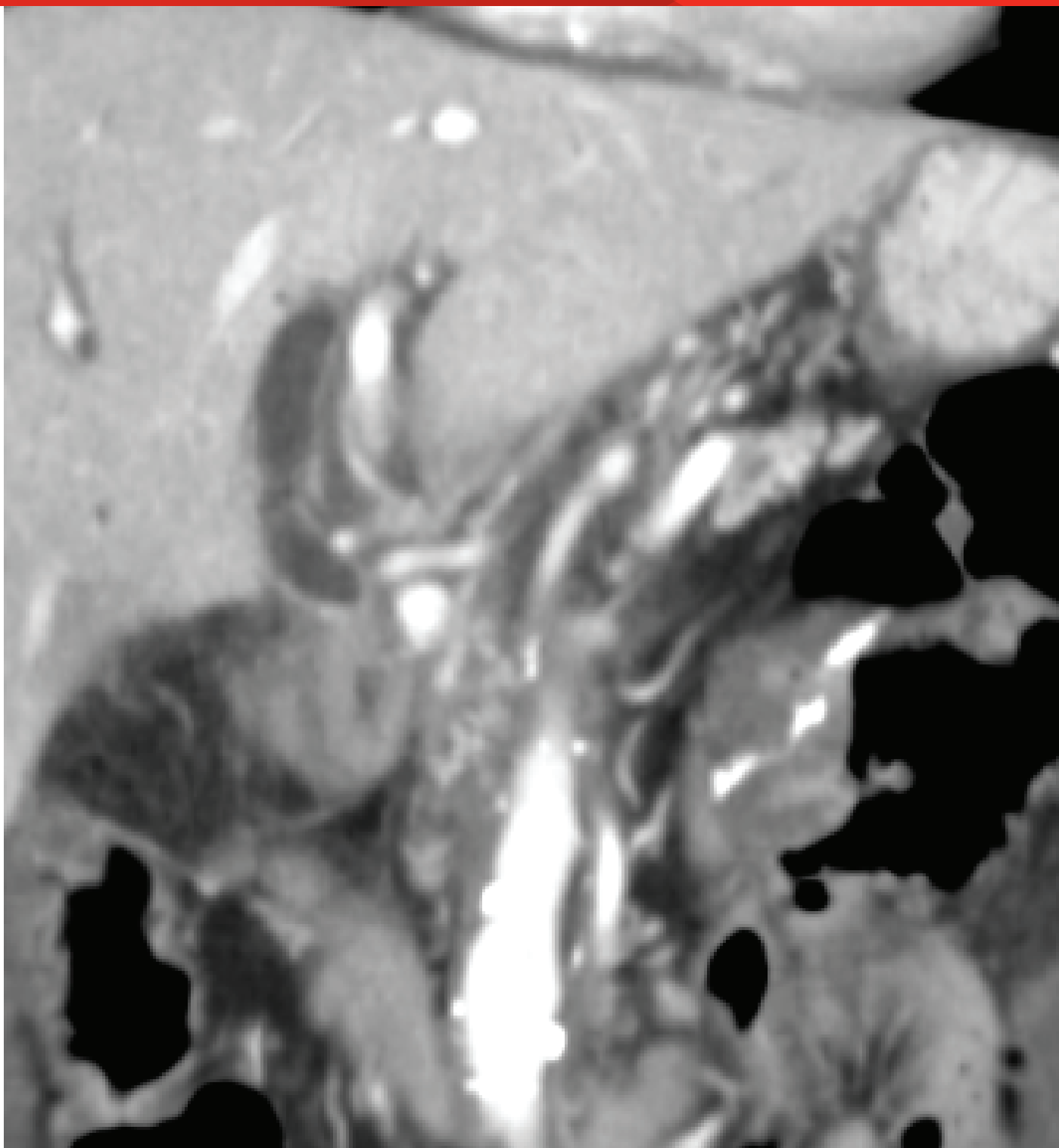
The endoscope was passed into the afferent limb, but the biliary anastomosis (hepaticojejunostomy) was obstructed. Endoscopic Ultrasound-guided Rendezvous (EUS-RV) technique was performed using a therapeutic channel linear echoendoscope initially to view the obstruction.

The left hepatic duct was punctured with a standard 19 gauge BOSTON SCIENTIFIC EXPECT SLIMLINE (SL) EUS Aspiration Needle and a cholangiogram showed obstruction of the common hepatic duct (*Figure 2*).

Figure 2: Coronal computed tomography (CT) prior to endoscopic intervention showing dilated biliary tree with obstruction at the hepaticojejunostomy by soft tissue mass.

**Image courtesy of Todd H. Baron, M.D.
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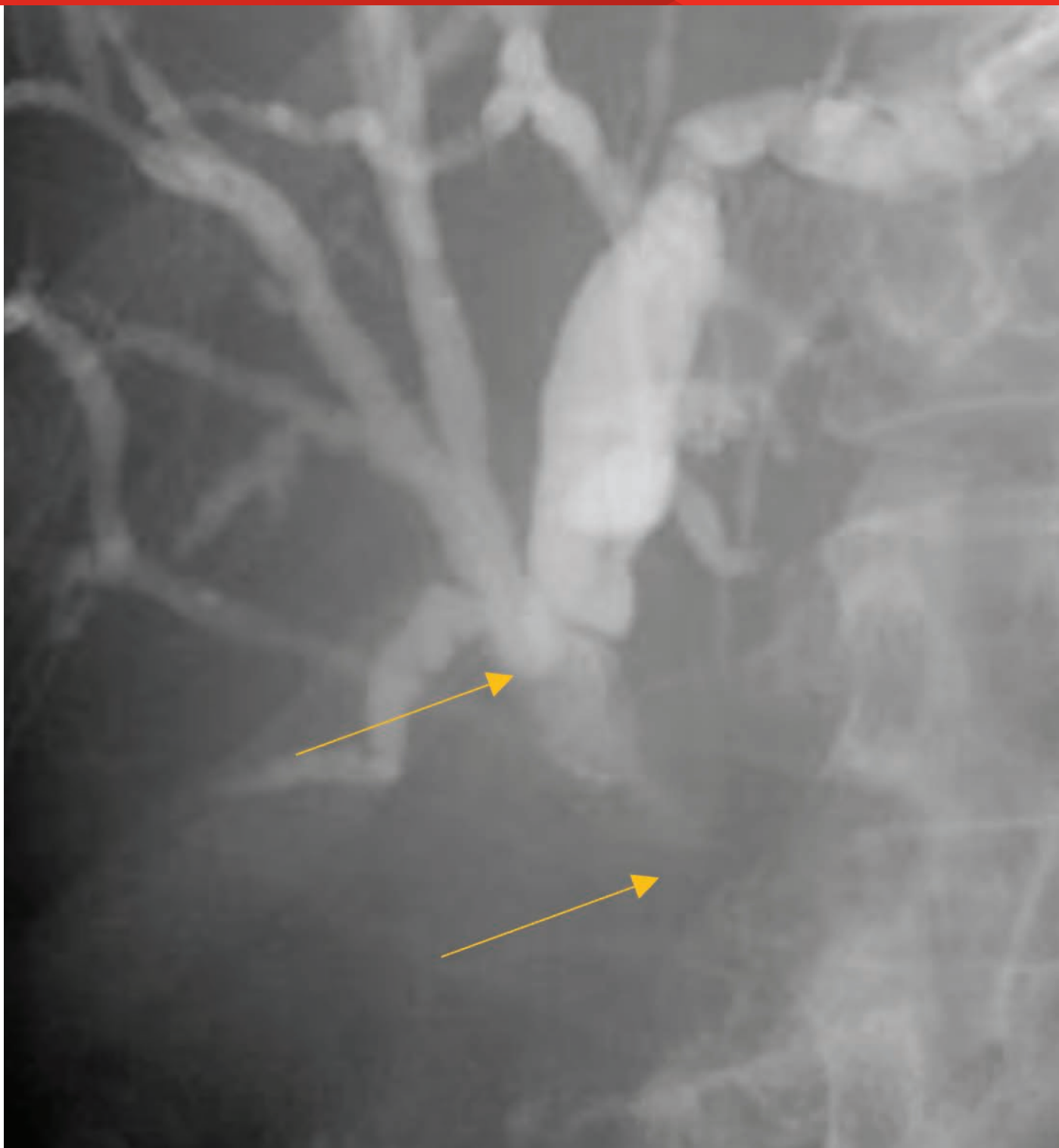


An OLYMPUS® VISIGLIDE Guidewire 450 cm long was passed antegrade into the biliary tree, across the hepaticojejunostomy and into the jejunum (*Figure 3*).

Figure 3: Radiographic image showing echoendoscope in the stomach with injection via 19 gauge endoscopic ultrasound aspiration needle after puncture of the left hepatic duct. Cholangiogram shows dilated intrahepatic duct with obstruction at the hepaticojejunostomy. The top arrow points to the bifurcation. Bottom arrow points at the upper margin of stricture.

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The forward viewing endoscope was reintroduced and the guidewire was grasped and withdrawn through the endoscope (*Figure 4*).

Figure 4: Radiographic image showing the guidewire passed through the needle across the hepaticojejunostomy into the jejunum. The arrow points to the contrast in jejunum.

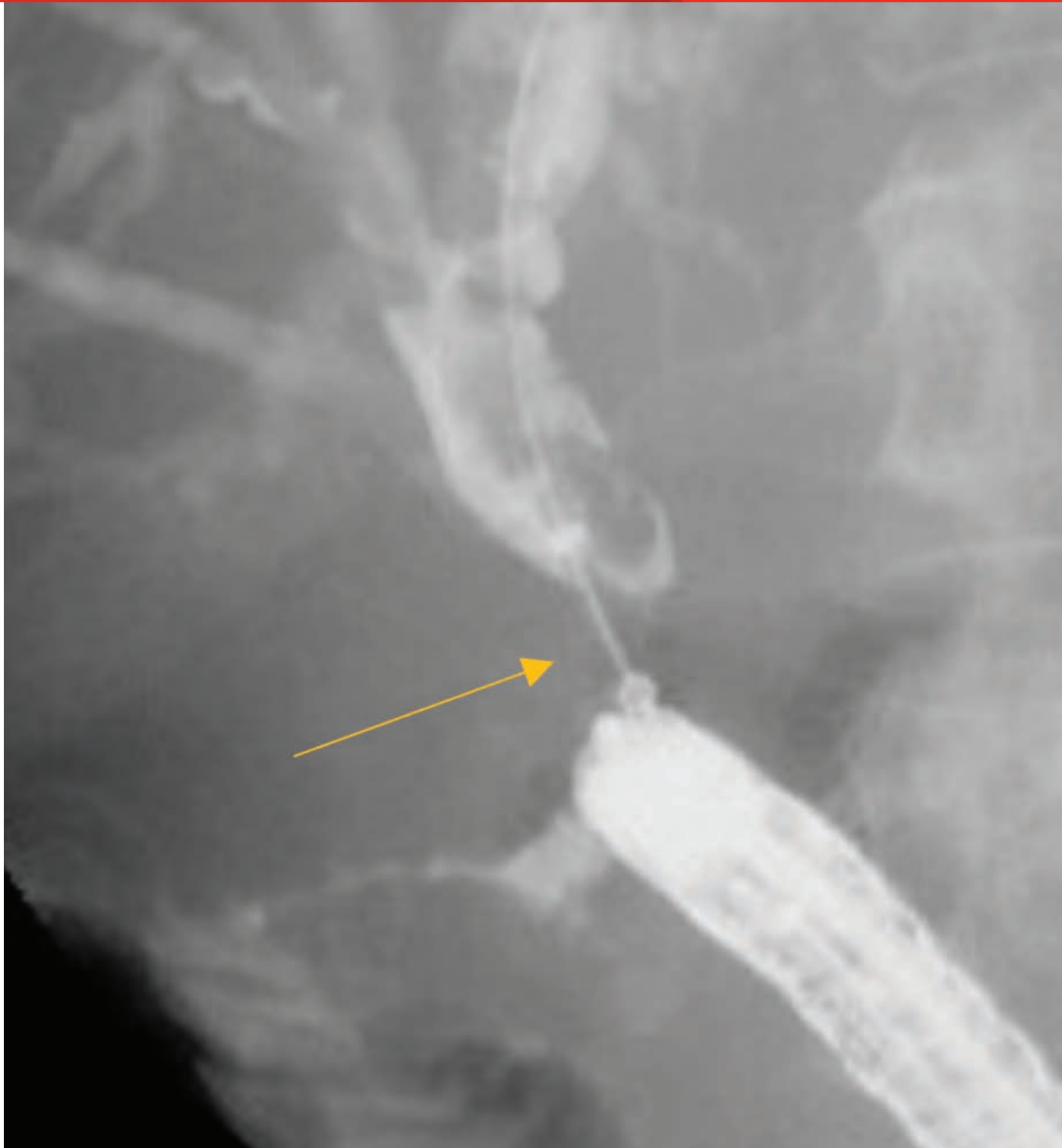
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Over the guidewire a 10 mm diameter X 4 cm length GORE® VIABIL® Biliary Endoprosthesis was placed via ERCP with the proximal end just below the biliary bifurcation (*Figures 5 and 6*) and the distal end in the duodenum (*Figure 7*).

Figure 5: Radiographic image showing forward-viewing endoscope positioned in the jejunum with guidewire grasped. The arrow points at midpoint of stricture.

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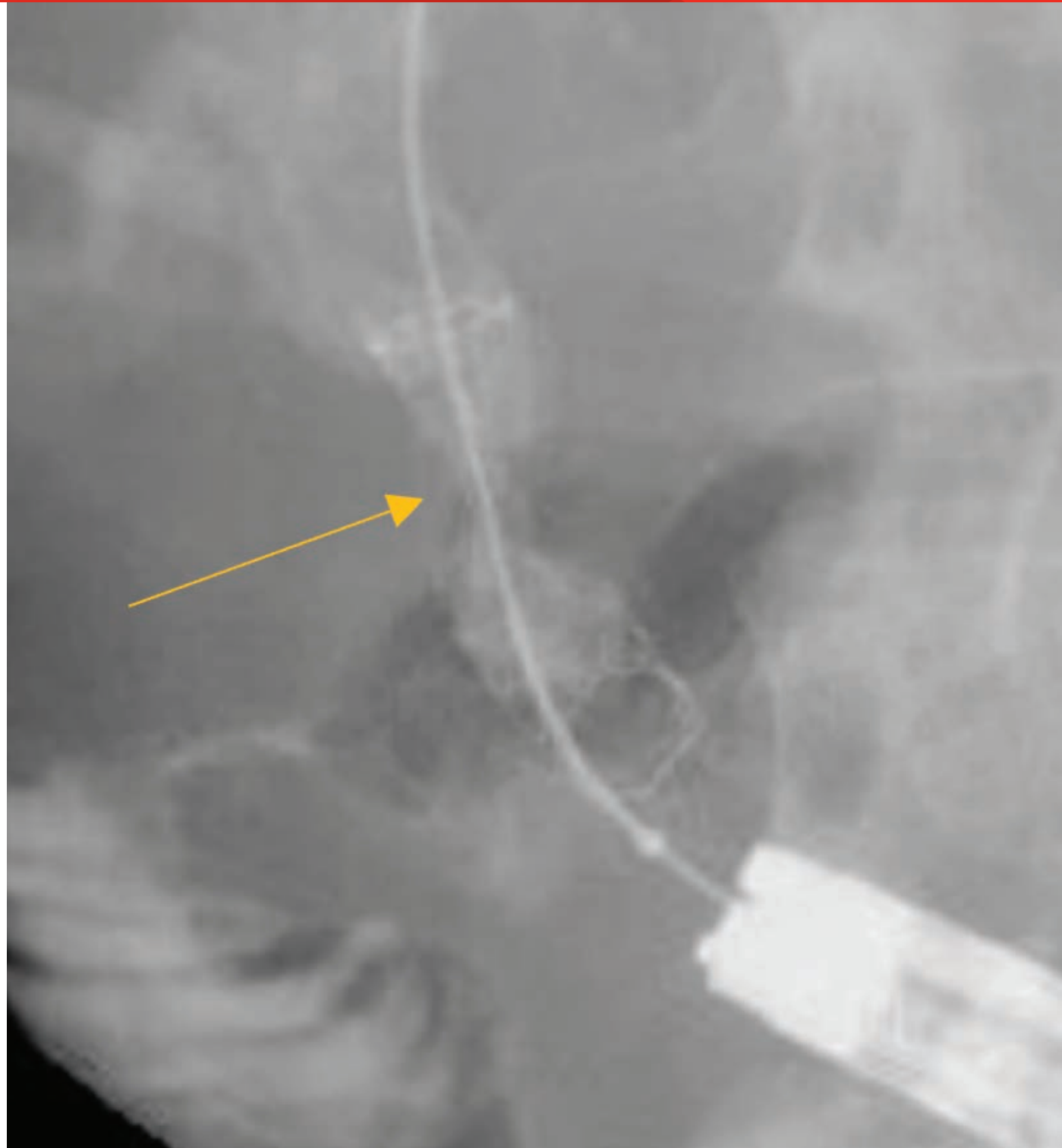


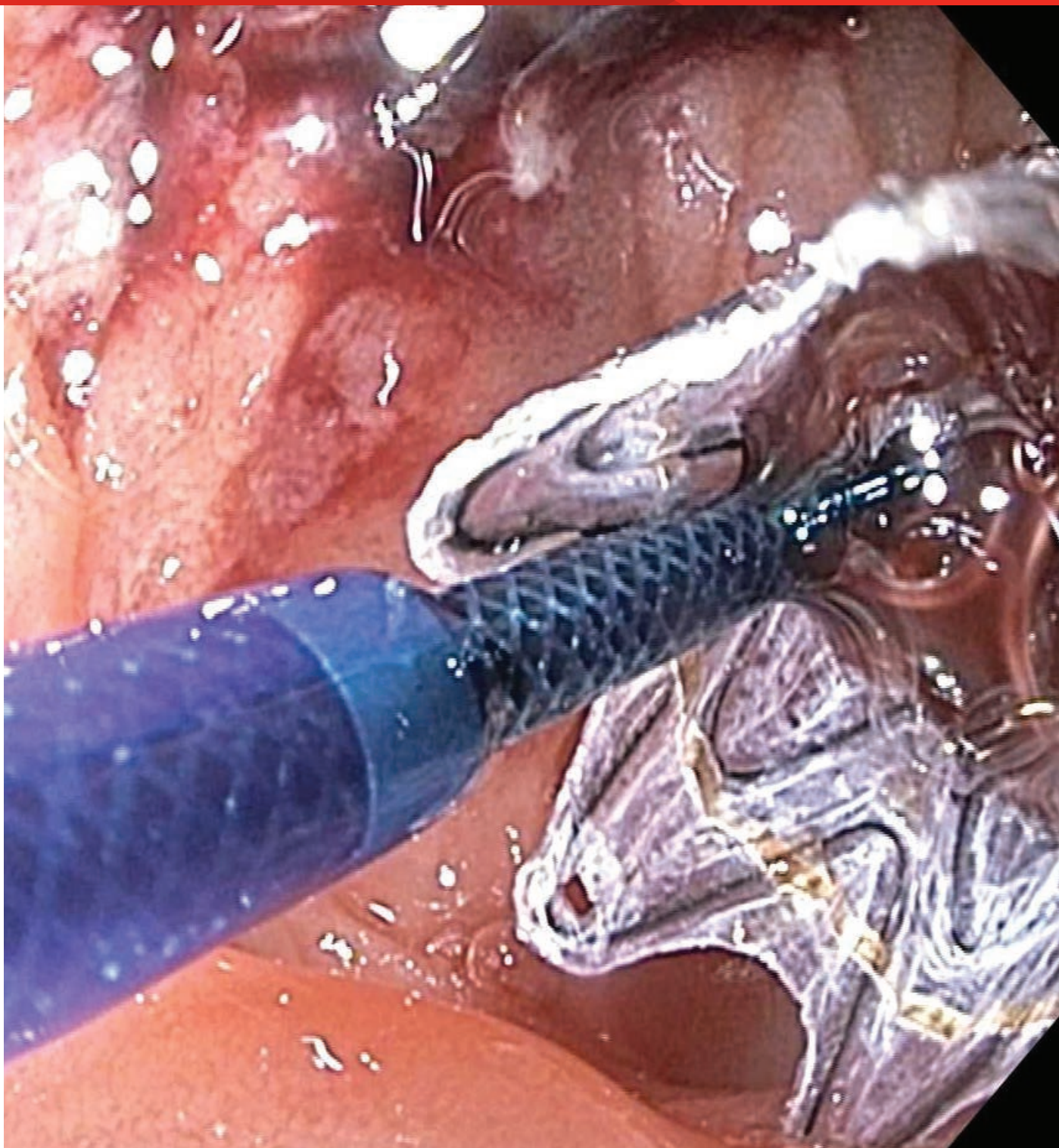
Figure 6: Radiographic image showing GORE® VIABIL® Biliary Endoprosthesis in place immediately after deployment. A waist is seen in the center of the stent at the point of stricture. The arrow points to the stent waist.

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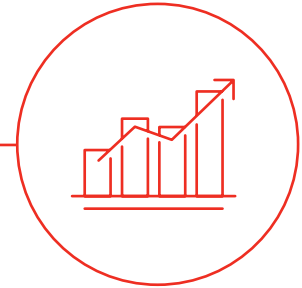
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Figure 7: Endoscopic image of GORE® VIABIL® Biliary Endoprosthesis immediately upon deployment with endoscope positioned in the jejunum, just distal to the hepaticojejunostomy.

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RESULTS



- **Post treatment outcome:** Successful relief of biliary obstruction with normalization of serum bilirubin.
- **Follow-up:** Two months post-procedure the serum bilirubin remained normal. However, the patient died later due to complications from the progressive malignant disease.

The outcomes and observations reported are based on individual case experience and the patients treated. The steps described here may not be completed and are not intended to be a replacement for the *Instructions for Use* or the education, training and professional judgment of healthcare providers (HCP). HCP remain solely responsible for making decisions about patient care and the use of medical technologies.



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