

WITH A LITTLE HELP FROM MY FRIENDS: PERCUTANEOUSLY ASSISTED BILIARY DRAIN INTERNALIZATION

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ABSTRACT

BACKGROUND

- Endoscopic ultrasound (EUS)-guided hepaticogastrostomy (HG) provides endoscopic biliary drainage when conventional techniques are not feasible (1,2)
- Procedure can be technically challenging in the absence of dilation

CASE

- 43-year-old female with a history of total pancreatectomy for chronic pancreatitis followed by surgical revision including Roux-en-Y reconstruction and hepaticojejunostomy (HJ)
- Developed recurrent episodes of ascending cholangitis in the setting of diffuse biliary strictures and afferent limb dysmotility despite surgical revision of jejunojejunostomy
- Percutaneous transhepatic biliary drain (PTBD) placed, complicated by repeated hospitalizations for dehydration in the setting of high drain output (1-2L/day) and progressive malnutrition
- After a multidisciplinary discussion, it was felt that internalizing drainage would address these issues by promoting physiologic flow of bile (3).
- EUS-guided HG was performed facilitated by the existing percutaneous drain
- Biliary drain exchanged for balloon catheter, advanced into the left hepatic duct, and occlusion cholangiogram performed to opacify and distend the target ducts
- Distension of the ducts facilitated EUS-guided puncture with 19-gauge needle, guidewire advanced, tract dilated, and a 10mm x 8cm fully-covered self-expandable metal stent was deployed
- Coaxial plastic stent placed to drain the right biliary tree; bilateral drainage achieved
- Patient did well with no additional hospitalizations for cholangitis and improvement in nutrition parameters

DISCUSSION

- Case highlights a creative, collaborative approach to EUS-HG which unencumbered the patient from external hardware and improved her nutrition through more physiologic bile circulation.

KEY IMAGES

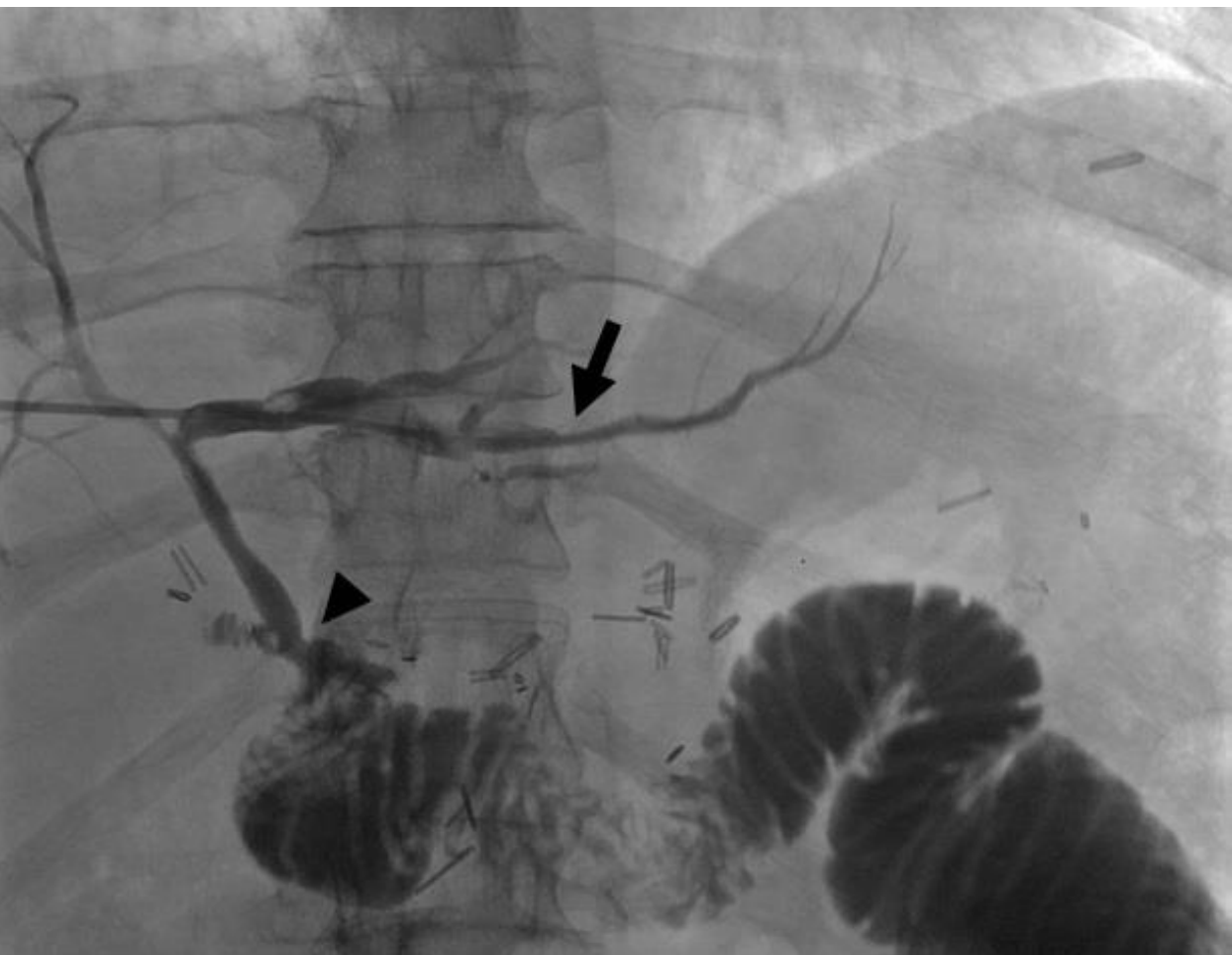


Figure 1. Cholangiogram obtained through a percutaneous transhepatic biliary drain highlighting diffuse intrahepatic strictures (arrow), a relatively patent hepaticojejunostomy (HJ), and contrast pooling in the biliary limb.

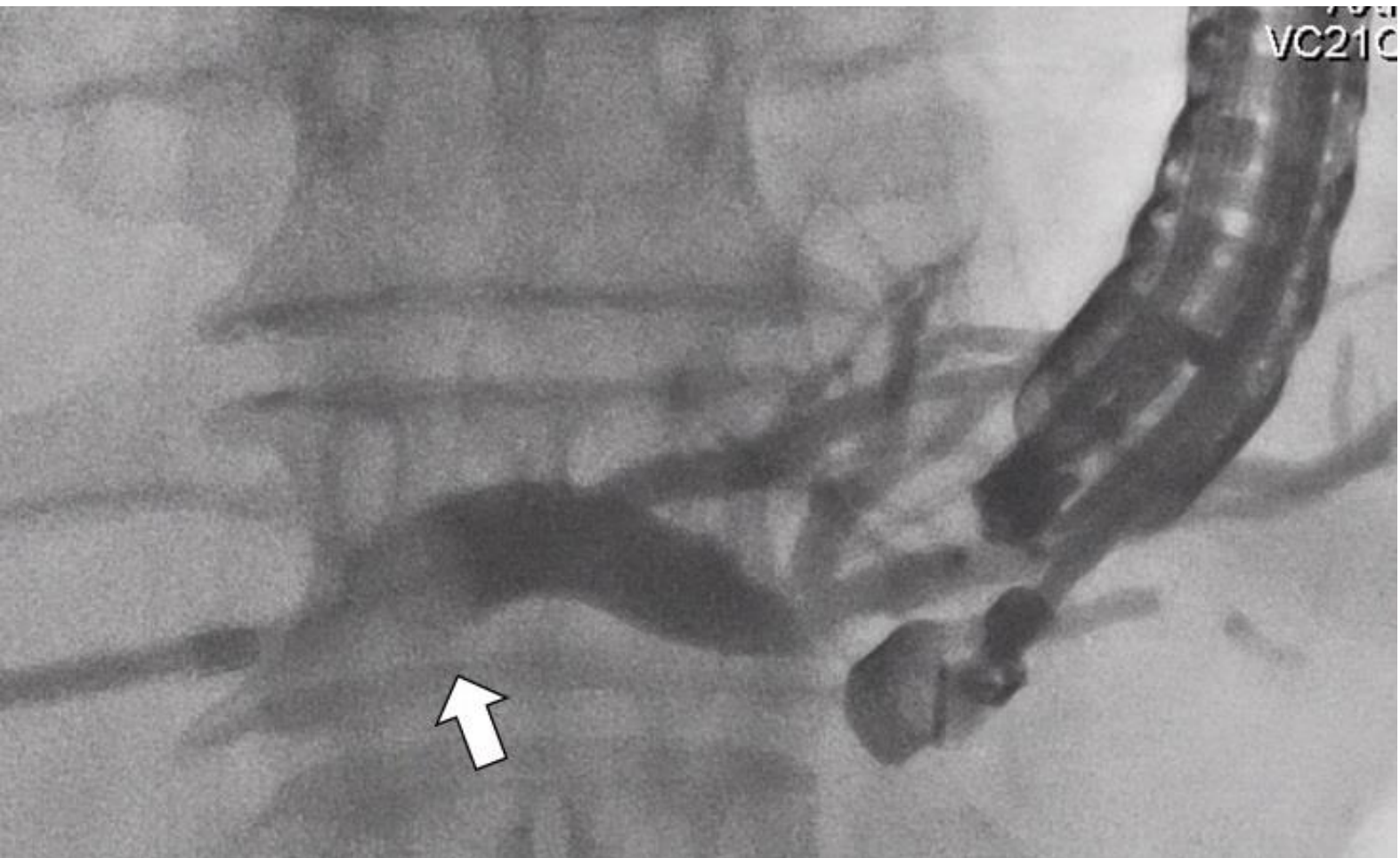


Figure 2. A balloon occlusion catheter passed through the existing percutaneous drain tract with the balloon insufflated (arrow) and contrast injected to opacify and distend the left intrahepatic duct.



Figure 3. EUS-guided hepaticogastrostomy performed with puncture of a left intrahepatic duct with a 19-gauge needle

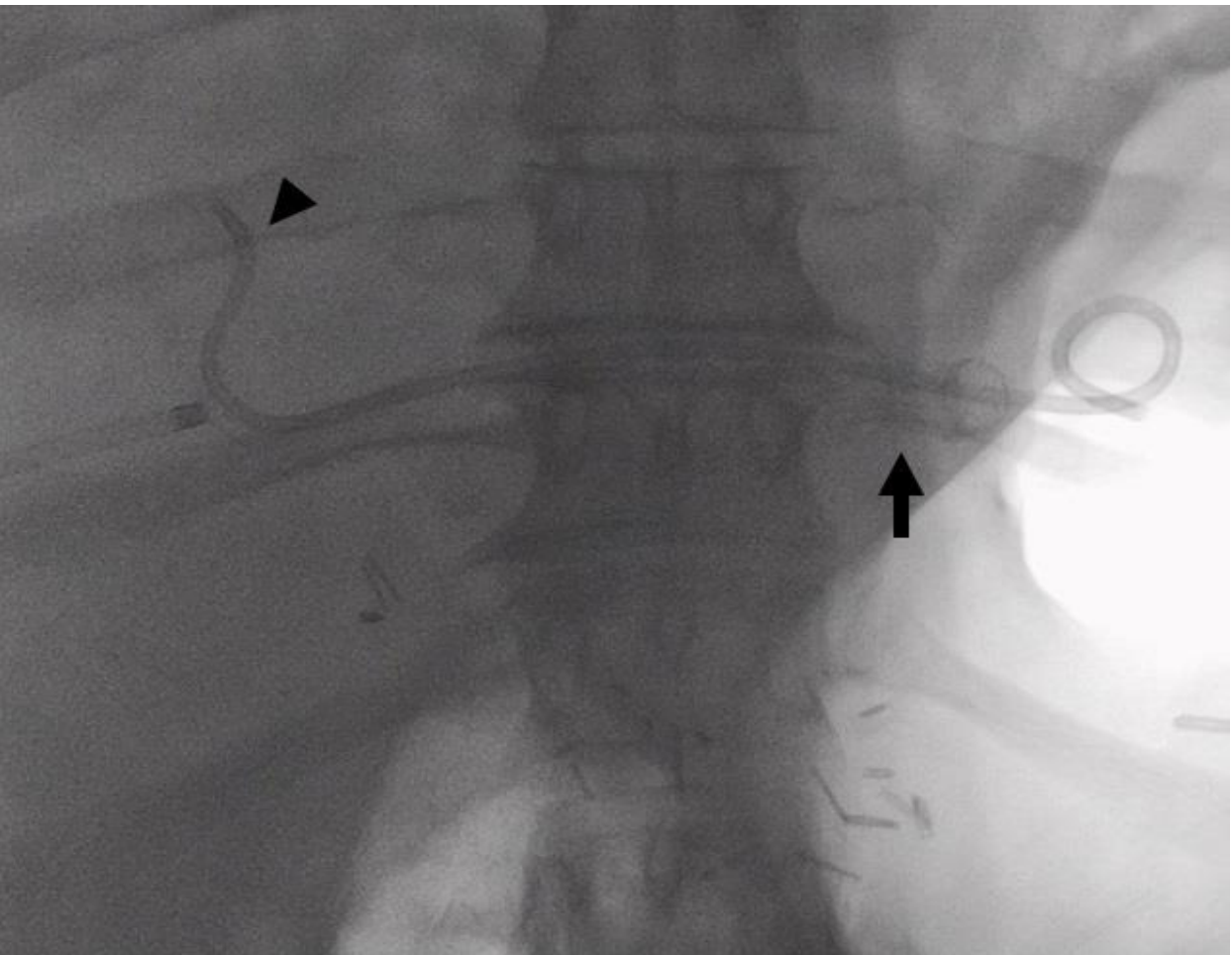


Figure 4. Final fluoroscopic image showing the fully covered metal stent traversing the hepaticogastrostomy (arrow) and plastic double pigtail stent draining the right side of the biliary tree (arrowhead).

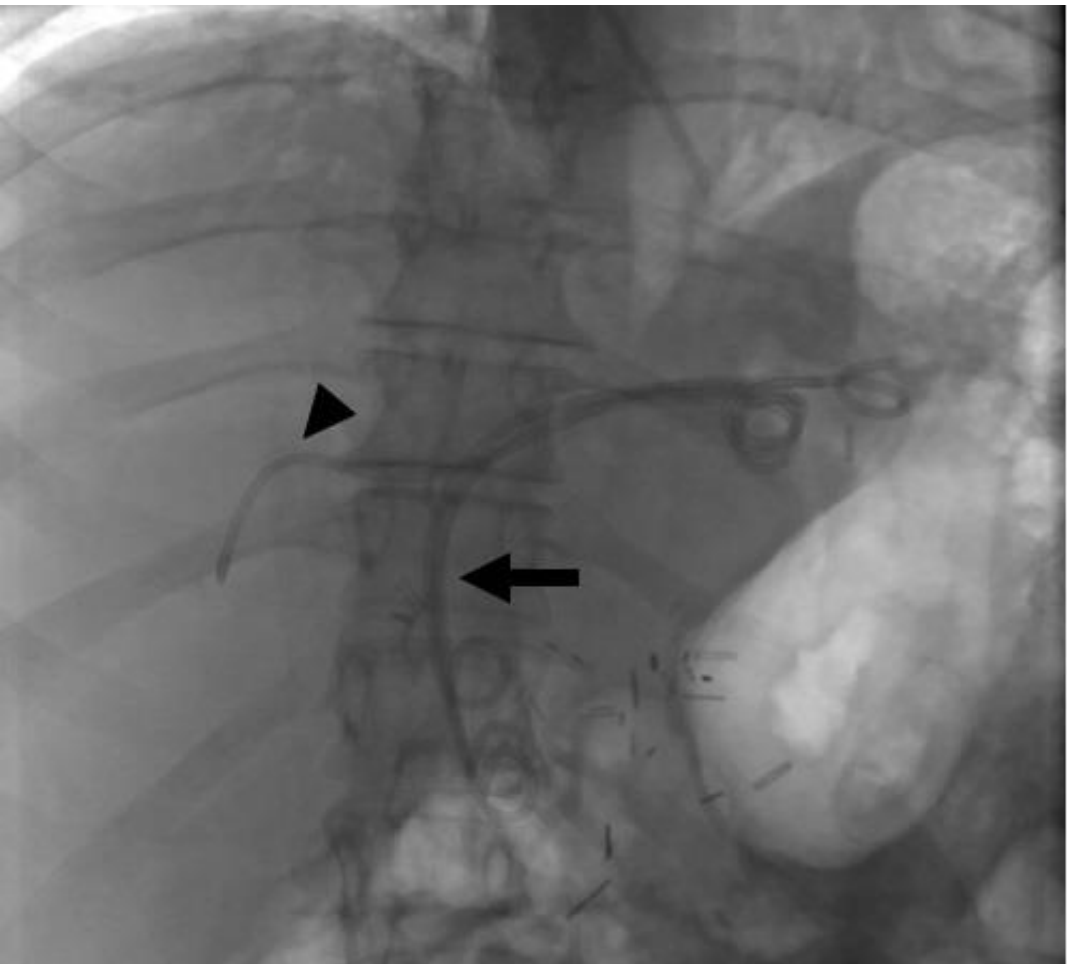


Figure 5. Routine stent exchange performed at 8 weeks with removal of initial stents and placement of 4 pigtails. Three traversing the hepaticojejunostomy (arrow) and one in the right posterior hepatic duct (arrowhead).



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