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CASE REPORT

Yttrium-90 Mapping Via a Radial Approach in a Patient With an Occluded Celiac Artery

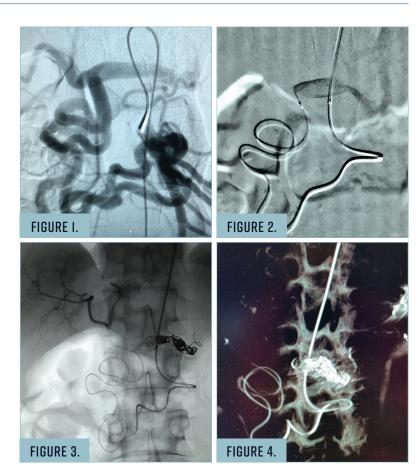
BY VINCENT L. FLANDERS, MD

55-year-old man with a history of metastatic colorectal cancer was being mapped for yttrium-90 (Y-90) therapy. Previous chemotherapy treatment proved unsuccessful, and the patient was referred to the interventional radiology department because his disease was slowly progressing.

The initial CT scan demonstrated complete occlusion of the celiac artery with a hypertrophied arc of Buhler (AOB). The AOB is a rare anastomotic branch between the 10th and 13th ventral segmental arteries, resulting in a connection between the celiac and the superior mesenteric artery (SMA). It is present in 1% to 4% of individuals. The initial attempt from a femoral approach was not accessible (Figure 1).

Because of this occlusion, a left radial approach was chosen, given the angle of origin of the SMA. A 4-F long angled glide catheter was manipulated into the proximal SMA through which a 0.021-inch J-shaped Direxion™ Microcatheter (Boston Scientific Corporation) and a 0.014-inch microwire were advanced through the tortuous AOB into the common hepatic artery (Figure 2). Given that the celiac artery origin was occluded, the flow within the splenic artery resulted in reversal of flow within the proper hepatic artery.

The splenic artery was then coil embolized to stasis using a number of Interlock[™]-18 Fibered Platinum Coils (Boston Scientific Corporation) allowing for proper mapping of the liver (Figure 3). The patient underwent Y-90 and had an uneventful recovery. The final result is shown using 3D spin imaging (Figure 4). ■



VINCENT L. FLANDERS, MD

Northwest Radiology St. Vincent's Medical Group Indianapolis, Indiana Disclosures: None.