

Use of Multi-3V Plus Extraction Balloon in a Patient with Recurrent Pyogenic Cholangitis

A Case Report by Dr. Daniel K. Mullady and Dr. Steven A. Edmundowicz

Case Report

A 54-year-old Vietnamese woman with recurrent pyogenic cholangitis and multiple prior endoscopic retrograde cholangiographies (ERC) presented with right upper quadrant pain, fever, and jaundice. ERC was performed.

Procedure

Initially, an extraction balloon and long guidewire were used to cannulate the bile duct through a widely patent biliary sphincterotomy. Cholangiogram revealed multiple large stones within the left intrahepatic duct and intrahepatic branches, and multifocal narrowing within the left main duct. The left main duct was irregular and narrowed close to the bifurcation. After multiple attempts, the guidewire was successfully advanced into a left intrahepatic duct. Dilation to 12 mm of the left main duct was performed. The extraction balloon was inflated to 11.5 mm. It was difficult to pull the balloon through the duct, given the multiple areas of narrowing. At the bifurcation, the balloon ruptured and the balloon fell out of the duct along with the guidewire.

The bile duct was then deeply cannulated with the Olympus Multi-3V Plus extraction balloon. The balloon was loaded with a 0.025-inch VisiGlide angled guidewire through the distal wire port, allowing the physician to control the wire. The wire was rotated, and selective access to the left biliary tree was easily and quickly achieved. The guidewire was locked in place, and the balloon was advanced over the wire into the left intrahepatics. Subsequently, the balloon was inflated to 8.5 mm in the left intrahepatic duct as it was withdrawn. As the duct became wider, the balloon was inflated to 11.5 mm and then to 15 mm. A large number of stones and debris were removed from the duct with multiple balloon sweeps. Following the procedure, the patient did well and was discharged. (See Figures 1 and 2.)

Discussion

This case demonstrates several features and advantages of the Olympus Multi-3V Plus extraction balloon. First, the distal wire port allows for use with a short-wire system, which means that the physician can manipulate

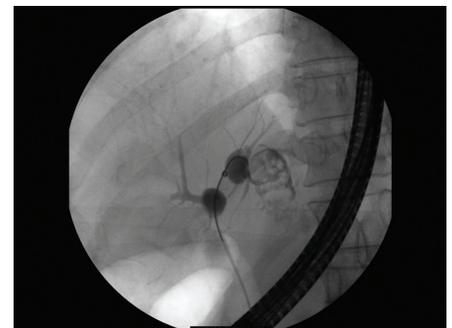


FIGURE 1

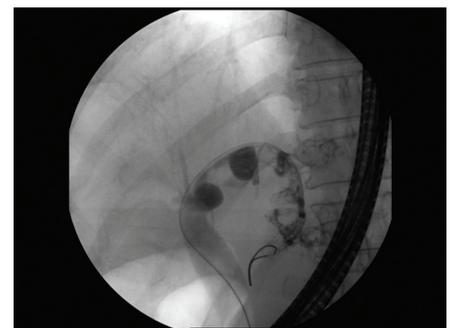


FIGURE 2

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the wire. This was especially important in this case, where access to the left system proved difficult and time-consuming with the traditional long-wire system. In this case, the physician could advance and rotate the wire, which made gaining access to the left system easier. Second, in this patient, it was difficult to maintain a stable position. The ability to secure the wire at the biopsy channel provided a more stable platform to perform multiple balloon sweeps rapidly without losing the wire and falling back into the stomach. Third, the irregularity of the duct necessitated multiple balloon sizes, which could be easily achieved using the premeasured syringes of 8.5 mm, 11.5 mm, and 15 mm. This case also highlights the greater durability of the Olympus Multi-3V Plus balloon, which is made of a thick, high-grade latex. The balloon remained intact after multiple balloon sweeps, whereas our initial balloon had ruptured on the first sweep. In difficult stone cases, the duct often needs to be cannulated multiple times resulting in papillary edema, which can make regaining biliary access difficult. The Olympus Multi-3V Plus balloon is advantageous in that it has a tapered tip to 4.5 F and the option of physician-controlled, wire-guided cannulation. (See Figure 3.)



FIGURE 3



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Dr. Mullady is a paid consultant to Olympus America Inc., Medical Systems Group (Olympus). Olympus did not draft, edit, or provide any substantive input on this Case Report.



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