

# Usefulness of the Single-Operator SpyGlass System for Common Bile Duct Stones Refractory to Conventional Therapeutic ERCP



CASE PRESENTED BY:  
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## PATIENT HISTORY

A 66-year-old female patient with substantial cardiopulmonary comorbidity was referred because of a refractory common bile duct stone. She was admitted elsewhere because of cholangitis secondary to a large entrapped common bile duct stone of 24mm. Three previous attempts to remove the stone by means of conventional endoscopic retrograde cholangiopancreatography had failed.

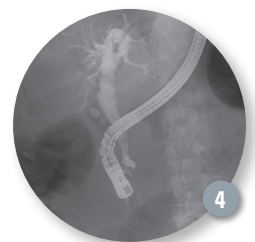
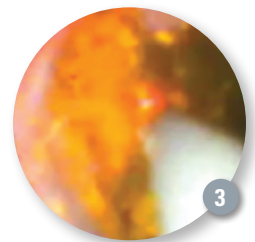
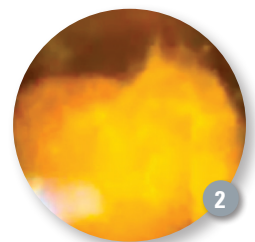
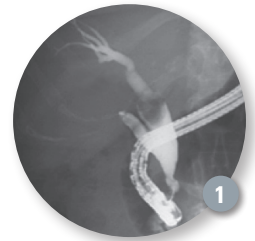
## PROCEDURE AND PATIENT OUTCOME

Under general anesthesia, the procedure was repeated. The papilla was found on the edge of a large diverticulum. Cannulation was obtained by means of a sphincterotome and a Hydra Jagwire® Guidewire. Opacification confirmed the presence of a giant obstructive common bile duct stone of 24mm (**Figure 1**). The sphincterotomy was enlarged as far as anatomically considered safe. Since the length of the sphincterotomy was not considered large enough for stone removal, we next carried out a dilation of the papilla by means of a wire guided Boston Scientific CRE™ Balloon (5.5cm – 12-15mm) in an attempt to perform dilation assisted stone extraction (DASE). The stone, however, could not be mobilized by a stone retrieval balloon or entrapped by dormia basket. We, therefore, switched to the SpyGlass® Direct Visualization System assisted intraductal electrohydraulic lithotripsy (EHL) in order to fragment the stone and clear the common bile duct (CBD).

The SpyScope® Access and Delivery Catheter was introduced up to the lower edge of the stone (**Figure 2**). Subsequently, the EHL probe was introduced through the working channel of the SpyScope Catheter after which the stone was fragmented by applying pulses through the EHL probe (**Figure 3**). After fragmentation, the CBD was cleared by means of a dormia basket. Opacification of the CBD after duct clearance is illustrated in **Figure 4**. The patient underwent the procedure uneventfully and was discharged the day after.

## CONCLUSION

This patient case illustrates the usefulness of the SpyGlass System-assisted intraductal lithotripsy for CBD stones refractory to conventional therapeutic ERCP. Moreover, it alleviated surgery in a high-risk patient.



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