E-Videos

Pancreatic sphincterotomy allows removal of a fractured stone basket trapped in the pancreatic duct after lithotripsy





Fig. 1 A radiopaque stone within the dilated pancreatic duct seen on computed tomography.





► Fig. 2 The basket with the entrapped stone was impacted within the pancreatic duct at the papilla.

A 57-year-old woman presented with recurrent epigastric pain. Computed tomography of the abdomen revealed a 26-mm pancreatic stone obstructing the main pancreatic duct (MPD) in the body portion (▶ Fig. 1). We performed three sessions of extracorporeal shockwave lithotripsy (ESWL) using a third-generation lithotripter (Delta Compact II; Dornier MedTech, Weßling, Germany). Up to 5000 shocks were delivered per therapeutic session on a scale of 1 to 6, with a frequency of 120 shocks/min. Endoscopic retrograde cholangiopancreatog

Fig. 3 a A captured pancreatolith with mechanical lithotripsy being performed. **b** The basket fractured at the handle portion of the lithotripter and the wires fell into the digestive tract.



Video 1 Procedural steps of attempts to remove the trapped basket.

raphy (ERCP) was routinely performed to remove the pancreatolith after ESWL to avoid steinstrasse. After sphincterotomy, we attempted to remove the pancreatolith with an eight-wire basket (MB5-2X4-8; Wilson-Cook Medical Inc., Bloomington, Indiana, USA); however, the basket became trapped by the calculi near the pancreatic orifice at the papilla (**Fig.2**). The first solution we thought of was mechanical lithotripsy, and as we feared, the wires broke near the handle of the lithotripter (**Fig.3 a, b**). Attempted reduction of the calculi with forceps and re-cannulating the MPD both failed. We employed a DualKnife (KD-650U, Olympus Corporation, Tokyo, Japan) to extend the sphincterotomy by approximately 3 mm. With the exposure of the trapped pancreatolith, forceps removed part of the calculi at the papilla. A guidewire was then successfully passed through the fractured basket and pancreatolith complex, and the impacted complex was retrieved with a balloon (AMH-RBT; Anrei Medical, Hangzhou, China). Following this, the fractured basket was also successfully removed by forceps (> Video 1). The fragmented pancreatolith was also successfully removed by balloon and the patient was discharged uneventfully.

Here, we report a successful retrieval of an impacted basket with the entrapped pancreatolith. Although the situation may have been reported in the literature [1-3], the operative procedure was thrilling and fascinating. We have shown that sphincterotomy extension is safe and effective in the management of this condition.

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Competing interests

The authors declare that they have no conflict of interest.

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