Removal of obstructed pancreatic stent tube and biliary stones in patient with Roux-en-Y anatomy under direct endoscopic view

A 42-year-old man was admitted due to upper abdominal pain for 2 hours. He had undergone a pancreatectoduodenectomy for a pancreatic tumor with a Roux-en-Y anastomosis 3 years earlier. Over the past year, he had experienced recurrent episodes of acute pancreatitis. Abdominal computed tomography scans revealed high-density images at the terminus of the pancreatic stent tube and the hilar bile duct (▶ Fig. 1). Stent obstruction was suspected and endoscopic removal was performed (▶ Video 1).

We inserted an Olympus PCF-260 enteroscope (Olympus, Tokyo, Japan) through the oral cavity into the jejunal input loop, reaching the pancreaticojejunal anastomosis site. Here we observed a long pancreatic stent tube affixed to the intestinal wall with sutures. An adhesive stone was found at the distal end of the pancreatic stent tube, completely obstructing the lumen (▶ Fig. 2). Endoscopic scissors were employed to cut the sutures and the stent to facilitate stent removal. A snare device was then used to sequentially extract the stent and the attached stone. The choledochojejunal anastomosis was identified adjacent to the pancreatic anastomosis. Upon insertion of a cholangioscope (Eye-Max CDS11001, 9 Fr; Micro-Tech, Nanjing, China) for direct visualization (▶ Fig. 3), two calculi were revealed at the bile duct convergence (▶ Fig. 4). Following anastomosis dilation with a balloon catheter, the calculi were successfully extracted using a stone retrieval basket under direct visual guidance from the cholangioscope (▶ Video 1). Finally, a hemostatic clip was applied to constrict the dilated anastomosis, preventing reflux cholangitis. The patient was kept fasting for 48 hours. No complications were reported post-operatively. His abdominal symptoms resolved. He was discharged 4 days post-operatively.

Following pancreatic surgery, stent tubes are commonly used to reduce the risk of pancreatic fistula formation [1, 2]. In this rare case, the stent was completely obstructed by a stone, leading to recurrent episodes of acute pancreatitis. However, with the aid of endoscopic scissors, the obstructed stent was successfully removed endoscopically. Furthermore, for this patient with Roux-en-Y anatomy...
presenting with bile stones, the utilization of the cholangioscope was more intuitive and accurate, offering a direct and radiation-free approach.

**Conflict of Interest**

The authors declare that they have no conflict of interest.

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