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Successful withdrawal of migrated pancreatic stent with a prototype guiding sheath

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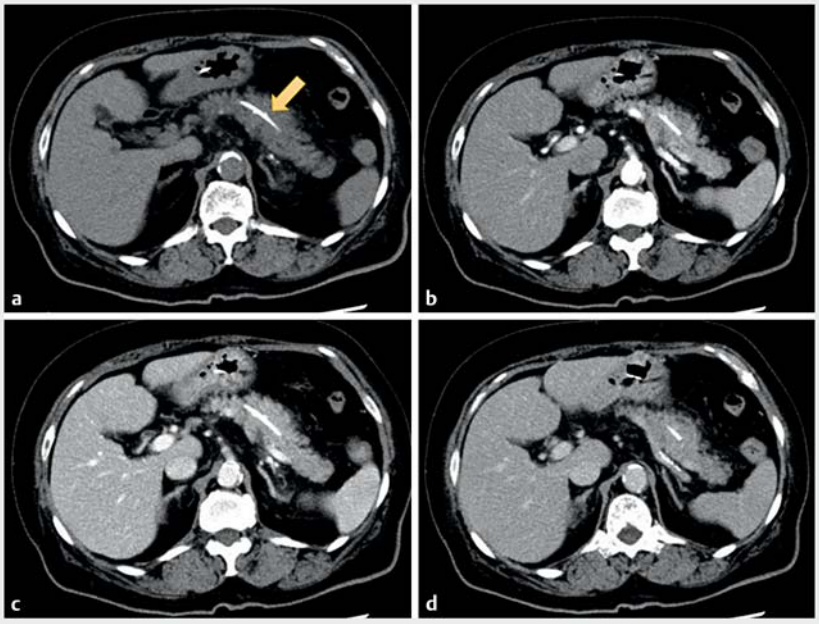
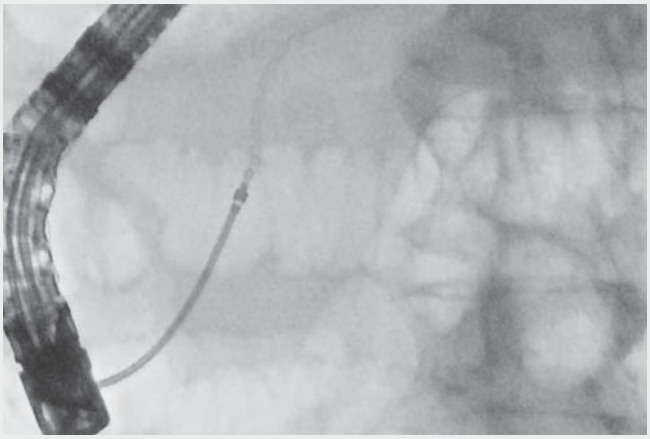
A prototype guiding sheath (UMIDAS Inc., Yokohama, Japan) is being developed for use in various procedures in pancreaticobiliary endoscopy. The guiding sheath can approach any area in the pancreaticobiliary duct that is difficult to approach through a stricture or tortuous duct and help with the insertion of various devices.

Migration of plastic stents has been reported to occur at a rate approximating 5 % [1]. Various removal techniques have been published for difficult cases, including the wire-looping technique, the use of gooseneck snares and Soehendra stent retrievers, and cholangioscopy-assisted stent retrieval [2, 3]. In this report, we have successfully withdrawn a migrated pancreatic plastic stent using biopsy forceps through the guiding sheath.

A 78-year-old woman was referred to our institution for the management of a migrated pancreatic stent that was prophylactically placed to prevent pancreatitis after the removal of common bile duct stones. She required hospitalization owing to prolonged pancreatitis, despite placement of an additional nasopancreatic drainage tube across the papilla. A computed tomography scan showed grade1 pancreatitis around the migrated stent, which was located in the pancreatic body (▶ **Fig. 1**). After obtaining informed consent for the possibility of a post-procedure exacerbation of pancreatitis, we tried to endoscopically remove the migrated stent. A stricture caused by irritation from the end of migrated pancreatic stent was found, so we employed the prototype guiding sheath to pass the stricture (▶ **Video 1**). Initially, a catheter was inserted into the pancreatic duct beside the nasopancreatic drainage tube. The guiding sheath system was inserted along the guidewire through the stricture to reach the migrated stent, and the inner catheter and guidewire were removed. Subsequently, a biopsy forceps (Radial Jaw; Boston Scientific Corporation, Marlborough, Massachusetts, USA) was inserted through the guiding sheath and the end of the migrated stent was successfully grasped. The stent was pulled out from the pancreatic duct within the guiding sheath.



▶ **Fig. 1** Contrast-enhanced computed tomography images showing: **a** grade1 pancreatitis around the migrated pancreatic duct stent (arrow); **b** the arterial phase; **c** the portal phase; **d** the equilibrium phase.



Video 1 A migrated pancreatic duct stent is removed using biopsy forceps passed through a prototype guiding sheath.

Following the procedure, the patient's pancreatitis improved and she was discharged 4 days later. The guiding sheath was useful for inserting devices beyond the stricture.

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Competing interests

Hiroyuki Isayama has received honoraria from Fujifilm Corporation. He has also received grants for commissioned/joint research from Fujifilm Corporation, Boston Scientific Japan Corporation and scholarship grants from Boston Scientific Japan Corporation.

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