Antegrade brushing cytology through the EUS-guided pancreatic duct drainage route (with video)

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In general, pancreatic duct (PD) stenosis is histologically diagnosed by brushing cytology under ERCP. However, its diagnostic accuracy is limited.[1,2] In addition, if PD access is not possible due to PD obstruction caused by a large PD stone, this technique cannot be attempted. Recently, the infinity cytology device (7.5Fr, US Endoscopy, Mentor, OH), which is a wire-guided cytology brush that is thinner than conventional infinity cytology devices (9.0Fr),[3-5] has become available in Japan [Figure 1]. We herein describe successful antegrade brushing cytology for PD stenosis through the EUS-guided PD route.

A 49-year-old male was admitted to our hospital due to liver damage and acute pancreatitis. Computed tomography revealed the presence of large stones in the pancreatic head, and hence, ERCP was performed. However, although a biliary stent was

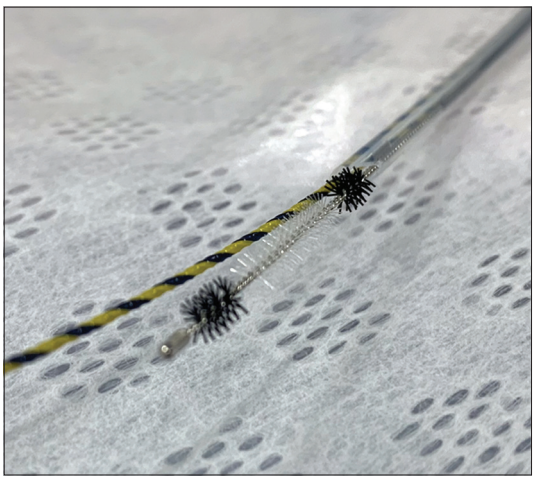

Figure 1. Infinity cytology device (7.5Fr, US Endoscopy, Mentor, OH) for wire-guided cytology brushing

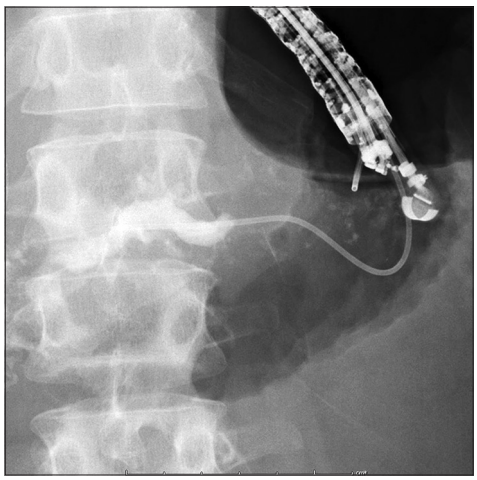

Figure 2. EUS-guided pancreatic duct drainage using a plastic stent was successfully performed

Video available on: www.eusjournal.com

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successfully deployed, PD access was unsuccessful. Therefore, EUS-PD drainage using a plastic stent was performed [Figure 2]. After 3 months, a scheduled stent exchange was attempted. Following the removal of the plastic stent, an ERCP catheter was antegrade inserted into the PD. Subsequent injection of the contrast medium revealed pancreatic body stenosis [Figure 3]. To differentiate between benign and malignant pancreatic stenosis, the infinity brushing cytology device was inserted, and brushing cytology was performed without any adverse events [Figure 4 and Video 1]. Finally, plastic stent deployment was performed [Figure 5]. This patient was finally diagnosed with benign PD stricture.

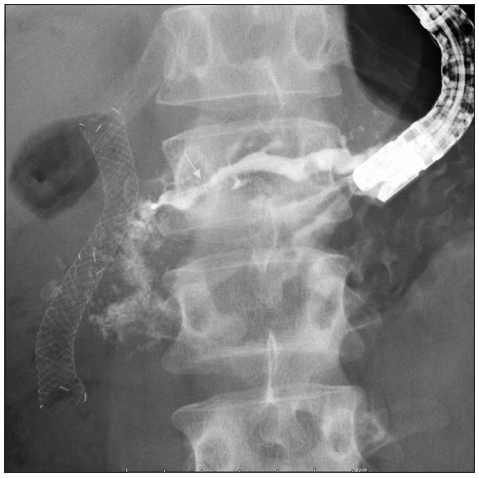

Figure 3. Pancreatic duct stenosis in the pancreatic body is seen (yellow arrow)

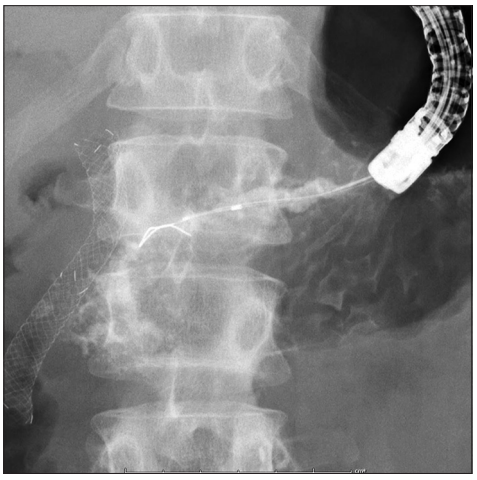

Figure 4. Brushing cytology using the infinity cytology device was performed

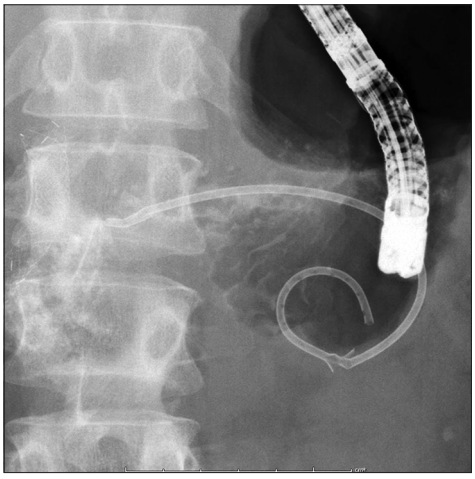

Figure 5. Successful EUS-guided pancreatic duct drainage using a plastic stent

Although comparative studies between this novel device and conventional devices are needed, this novel brushing cytology device might be useful not only under ERCP guidance but also for the antegrade approach, because it is both thin and enables adequate cell sampling.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initial will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

Takeshi Ogura is an Editorial Board Member of the journal. The article was subject to the journal's standard procedures, with peer review handled independently of this Member and his research groups. There are no other conflicts of interest.

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