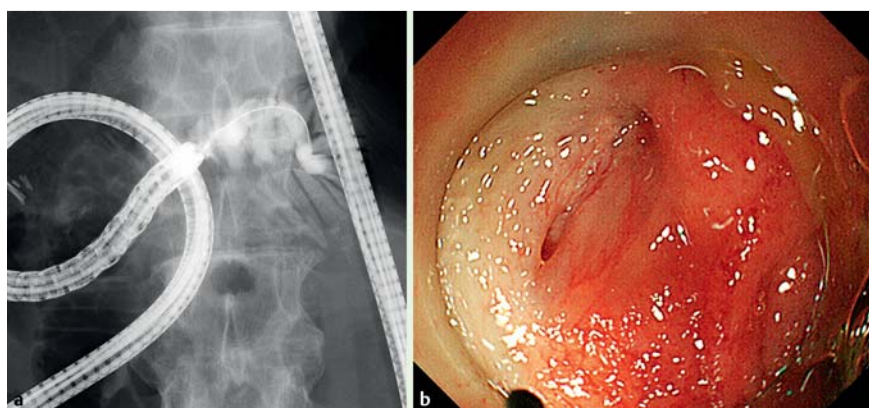


## Computed tomography enterography as a tool for identifying pancreaticojejunal anastomoses in patients who have undergone Whipple's resection



**Fig. 1** Stereoscopic images constructed using computed tomography (CT) enterography showing the relationship between the pancreaticojejunal anastomosis and the hepaticojejunostomy site in: **a** frontal view; **b** transparent version of the frontal view; **c** back view; **d** head view.



**Fig. 2** The pancreaticojejunal anastomosis was found at the presumed site as shown on: **a** fluoroscopic image; **b** endoscopic image.

During the endoscopic treatment of stenotic pancreaticojejunal anastomoses in patients who have undergone Whipple's resection, it can be difficult to identify the pancreaticojejunal anastomotic site

[1,2]. To solve this problem, we used computed tomography (CT) enterography to obtain detailed information about the pancreaticojejunal anastomotic site. We report a case in which a stenotic pancrea-

ticojejunal anastomosis was identified and treated with the help of CT enterography.

Before performing endoscopic retrograde pancreatography (ERCP), we obtained stereoscopic images of the target site with CT enterography, which was performed as follows: (i) an endoscope (PCF-PQ260L; Olympus, Tokyo, Japan) was inserted into the deep part of the afferent loop; (ii) a guidewire was placed through the endoscope, which was then removed leaving the guidewire in place; (iii) we then inserted a balloon catheter over the guidewire and inflated the balloon; and (iv) finally, the patient was transferred to our CT room where, after carbon dioxide had been insufflated through the balloon catheter, a contrast-enhanced CT scan was obtained with a 64-row multidetector CT scanner.

The CT data obtained were used to reconstruct stereoscopic images. We confirmed the shape of the afferent loop and the relationship between the pancreaticojejunal anastomosis and the hepaticojejunostomy site by viewing them from multiple directions (● **Fig. 1**).

After the procedure, we re-inserted the endoscope and sought the pancreaticojejunal anastomosis using fluoroscopic guidance whilst comparing the endoscopic view with the stereoscopic images. The afferent loop exhibited a similar morphology on the fluoroscopic images obtained during insertion of the endoscope to that on the stereoscopic images, and the pancreaticojejunal anastomosis was located at the presumed site (● **Fig. 2**). Therefore, we were able to successfully dilate the stenotic pancreaticojejunal anastomosis and placed two 5-Fr plastic stents across the pancreaticojejunostomy.

In conclusion, CT enterography could make it easier to locate pancreaticojejunal anastomoses and reduce the duration of surgical procedures involving such sites.

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