

## CASE REPORT



CrossMark

## Think opposite: biliary guidewire-assisted pancreatic cannulation in chronic pancreatitis for transpapillary pseudocyst drainage

Gianfranco Donatelli, MD,<sup>1</sup> Jean-Loup Dumont, MD,<sup>1</sup> Stavros Dritsas, MD,<sup>2</sup> Fabrizio Cereatti, MD,<sup>3</sup> Bruno Meduri, MD<sup>1</sup>

Pancreatic duct cannulation in chronic pancreatitis fails in up to 10% to 30% of cases because of difficult guidewire or catheter manipulation.<sup>1</sup> Synthetic porcine secretin<sup>2</sup> and more challenging techniques such as EUS-guided drainage or dorsal duct cannulation have been proposed.<sup>1-3</sup> Pancreatic guidewire-assisted biliary cannulation, also known as the double-guidewire (DGW) technique, after failure of deep cannulation of the common bile duct (CBD) was first described in 1998 by Dumonceau et al.<sup>3,4</sup> The aim of the DGW technique is to obstruct the pancreatic orifice and facilitate deep biliary cannulation.

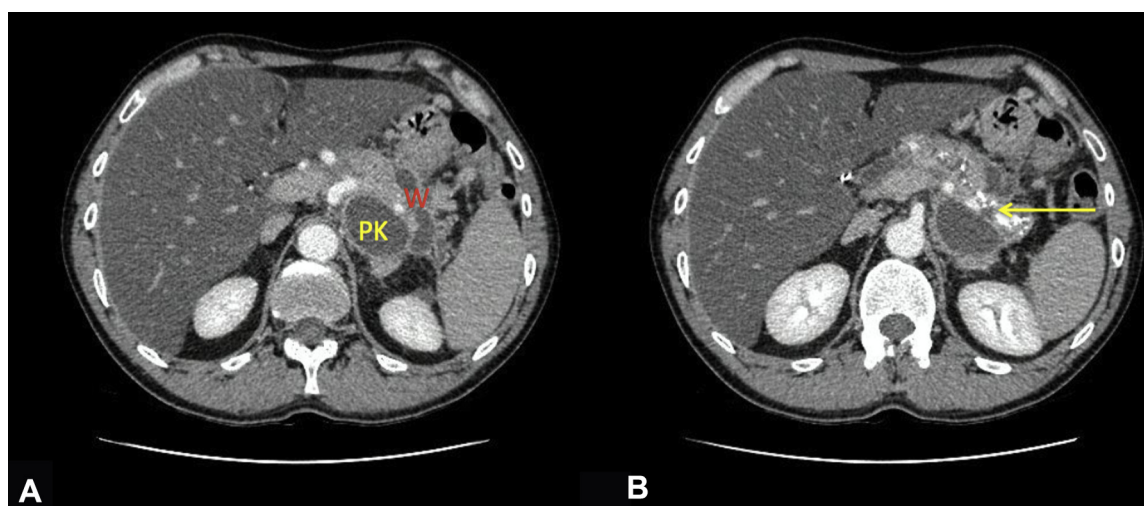
We report the case of a 40-year-old man with chronic alcoholic pancreatitis presenting with a dilation of the Wirsung duct complicated by a 4-cm fluid pseudocyst in the body of the pancreas in communication with the pancreatic duct (Fig. 1A, B, Fig. 2). Deep cannulation of the main pancreatic duct failed despite several attempts with different angles of cannulation. Cannulation of the CBD was eventually achieved. Therefore, we decided to leave the guidewire in the CBD (Fig. 3). Afterward, because of obstruction of the biliary orifice, a more precise cannulation of the pancreatic orifice was possible,

obtaining selective Wirsung duct cannulation (Fig. 4). Pancreatography showed major duct dilation coupled with a stricture and spillage of contrast inside the pseudocyst (Fig. 5). Pancreatic sphincterotomy was performed (Fig. 6), followed by hydrostatic 6-mm dilation (Fig. 7). A stent with multiple side holes (10F, 14 cm) was then deployed with the distal end inside the cavity and the proximal end transpapillary to achieve internal drainage and calibration of the pancreatic duct (Figs. 8, 9, Video 1, available online at [www.VideoGIE.org](http://www.VideoGIE.org)). Recovery was uneventful, and stent replacement was scheduled in 3 months.

The DGW technique is a useful tool for the management of difficult cannulation. Guidewire cannulation of the CBD to achieve pancreatic cannulation in cases of difficult pancreatic access is a feasible and effective technique.

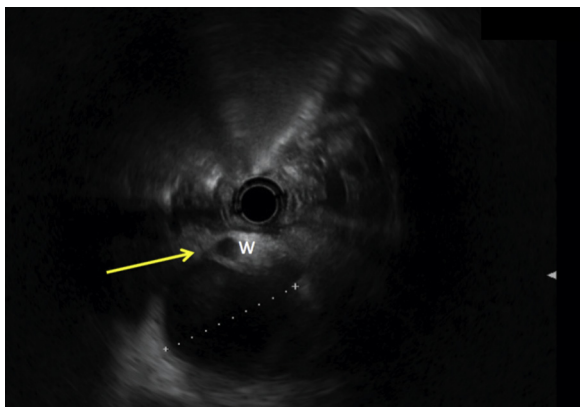
### DISCLOSURE

*All authors disclosed no financial relationships relevant to this publication.*



**Figure 1.** A and B, CT scan showing chronic pancreatitis with dilation of the Wirsung duct (W) complicated by a 4-cm fluid pseudocyst (PK) communicating with the main pancreatic duct (arrow).

Written transcript of the video audio is available online at [www.VideoGIE.org](http://www.VideoGIE.org).



**Figure 2.** Radial EUS showing a 4-cm fluid pseudocyst communicating with the Wirsung duct (*arrow*).



**Figure 5.** Dilated Wirsung duct communicating with the pseudocyst.



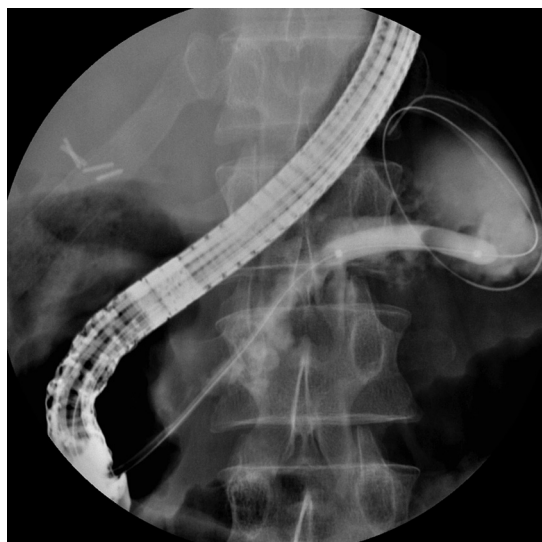
**Figure 3.** Pancreatic cannulation adopting a reversed double-guidewire technique.



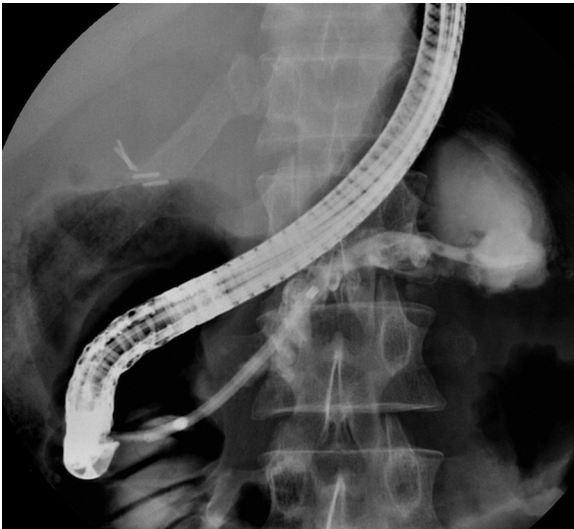
**Figure 6.** Pancreatic sphincterotomy.



**Figure 4.** Fluoroscopic image showing pancreatic cannulation after guidewire placement in the common bile duct.



**Figure 7.** Balloon dilation of the Wirsung duct.



**Figure 8.** Deployment of a pancreatic plastic stent with the distal end inside the pseudocyst.



**Figure 9.** Fluoroscopic image showing drainage of the pseudocyst inside the duodenum.

## REFERENCES

1. Will U, Reichel A, Fueldner F, et al. Endoscopic ultrasonography-guided drainage for patients with symptomatic obstruction and enlargement of the pancreatic duct. *World J Gastroenterol* 2015;21:13140-51.
2. Devereaux BM, Lehman GA, Fein S, et al. Facilitation of pancreatic duct cannulation using a new synthetic porcine secretin. *Am J Gastroenterol* 2002;97:2279-81.
3. Dumonceau JM, Delhaye M, Tringali A, et al. Endoscopic treatment of chronic pancreatitis: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline. *Endoscopy* 2012;44:784-96.
4. Dumonceau JM, Devière J, Cremer M. A new method of achieving deep cannulation of the common bile duct during endoscopic retrograde cholangiopancreatography. *Endoscopy* 1998;30(Suppl):S80.

Unité d'Endoscopie Interventionnelle, Ramsay Générale de Santé, Hôpital Privé des Peupliers, Paris, France (1), Service de Gastroenterologie, Hôpital René Dubos, Pontoise, France (2), Digestive Endoscopy and Gastroenterology Unit, A.O. Istituti Ospitalieri di Cremona, Cremona, Italy (3).

Copyright © 2016 The Authors. Published by Elsevier, Inc. on behalf of the American Society for Gastrointestinal Endoscopy. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

<http://dx.doi.org/10.1016/j.vgie.2016.07.010>