

A 61-year-old man was transferred from another hospital because of recurrent cholestasis. He had undergone a Whipple's operation for pancreatic cancer 27 months previously. Because of a stenosis of the biliodigestive anastomosis (tumor recurrence was suspected, but not histologically confirmed) a first, uncovered, metal stent was inserted percutaneously 1 year after surgery. At 9 months after that, a second metal stent (now a covered version) was placed to treat stent occlusion. We performed percutaneous puncture and drainage of the biliary system, and the second metal stent dislocated distally into the small bowel during dilation (Figure 1). The first stent was firmly embedded in the biliary duct. To avoid further complications, removal of the second dislocated stent was planned. The endoscope could not reach the biliodigestive anastomosis. A flexible Terumo guide wire was therefore introduced deeply into the small bowel via the percutaneous tract, was grasped with a forceps using a pediatric colonoscope and was pulled out of the mouth. A Teflon guide wire was then substituted for the Terumo wire. A 15-mm dilation balloon catheter (CRE-balloon; Boston Scientific, Ratingen, Germany) was inserted perorally over this guide wire, and pushed forward until it reached the dislocated stent (Figure 1), with the help of manipulation at both ends of the wire. After placement inside the stent, the balloon was inflated and extracted through the mouth together with the stent, without any problems (Figures 2 and 3). Treatment was then continued with a Yamakawa-type prosthesis, as planned. This case represents a further example of the usefulness of the combined endoscopic and percutaneous approach in difficult biliary situations; otherwise surgery would have been the only alternative.



Figure 1 The dislocated stent, with the balloon inside the stent but not yet inflated.



Figure 2 Extraction of the stent, held over the inflated balloon.

P. Born, T. Rösch

Department of Internal Medicine II,
Technical University of Munich,
Klinikum rechts der Isar, Munich,
Germany.

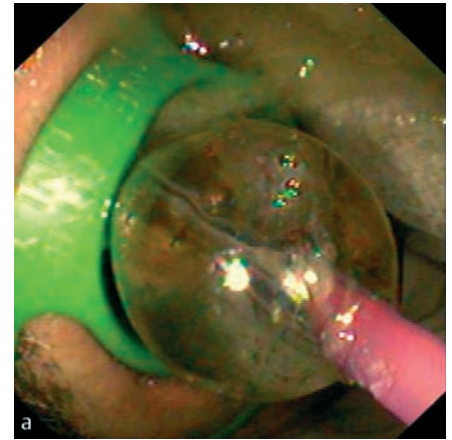


Figure 3 a Extraction of the balloon with the stent "riding" over it. b The extracted stent.

Corresponding Author

P. Born, M.D.

Department of Internal Medicine II
Technical University of Munich
Klinikum rechts der Isar
Ismaningerstraße 22
81675 München
Germany
Fax: +49-89-41404908
E-mail: Peter.Born@lrz.tum.de