Evolution[®] Stents for Relieving the Anatomic Difficulties of Post-Gastrojejunostomy



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Case 1

Recently, a 66-year-old patient from the Surgery Department was referred to our Endoscopy Center because of the anatomic stricture of post-gastrojejunostomy. We initially did an endoscopy check and found that the residual part of the stomach had very smooth mucosa on the inner surface.

When we advanced the endoscope to the anastomotic stoma, we saw the distal part beyond the stoma had an obvious stricture, which the endoscope could not traverse. We than tried an ERCP catheter and a .035-inch guide wire; unfortunately, they didn't overcome the stricture.

We then shifted to a fully hydrophilic guide wire and with hard efforts, the guide wire made a large loop and went over the stricture to the distal part of the jejunum (*Figure 1*). After injecting contrast, we could see an 8 cm long stricture (*Figure 2*). We then changed to a .035-inch guide wire and advanced an EVO-22-27-12-D (Cook Medical Controlled-Release stent) to the stricture (*Figure 3*).

The sheath of the stent system went through the stricture with difficulties and was shaped like a "figure-8 curve." With the controlled-release function, the stent deployed very well and the stent position was good (*Figures 4 and 5*). After operation, the patient was sent back to the Surgery Department ward. The patient recovered well and was discharged from the hospital three days later.

Case 2

A 49-year-old patient had formerly received a gastrojejunostomy. There was also a metallic biliary stent implanted because of a distal stricture of the common bile duct. When we saw the patient again four months later, the patient was experiencing jaundice and was suspected of having an obstruction within the implanted metallic biliary stent. So, we anticipated that an ERCP and new biliary stent exchange might be needed. The duodenoscope advanced to the second part of the duodenum where we detected an obvious stricture and the endoscope couldn't go through.





Figure 1





Figure 3

Figure 4



Figure 5



Figure 6



Figure 7

Figure 8

Under fluoroscopy, we could see the formerly implanted biliary stent (*Figure 6*). With repeated efforts, a fully hydrophilic guide wire eventually went over the stricture to the distal part of the jejunum. After injecting contrast, we saw two stricture sites, each about 3.5 cm in length. We then changed to a .035-inch wire and inserted an EVO-22-27-12-D (Cook Medical Controlled-Release Duodenal stent), which went along with the guide wire in an "S-curve" to the strictures and through the strictures with much effort. The stent was deployed successfully (*Figures 7 and 8*), placed in an ideal position, and the contrast flow went through the dilated stricture successfully.

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Conclusion

Every year, we diagnose and treat many patients with strictures or obstructions who are referred from the Surgery Department. For the stricture or obstruction caused by the malignant change, or the acute intestinal obstruction that needs surgery, or the anastomotic stoma stricture after surgery, self-expanding enteral metal stents can play a very important role in treatment.

When overcoming the stricture or obstruction, the stent system successfully reaches at the exact site of deployment, which is a very important step. But the following step of successfully deploying the stent over the stricture is more challenging. The Cook Evolution stent system has a very pushable and kink-resistant Flexor sheath, which helps ensure the stent system goes through the stricture and, even with extreme curves and bending, the stent can be deployed completely.