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Authors:
Jesús García-Cano, Miriam Viñuelas-Chicano, LAURA VALIENTE GONZÁLEZ

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Straight plastic stents in tumors at the hepatic hilum and related duodenal perforations

Jesús García-Cano, Miriam Viñuelas-Chicano, Laura Valiente-González.
Department of Digestive Diseases. Hospital Virgen de la Luz. Cuenca, Spain
Correspondence to: Jesús García-Cano. email: jegarca59@gmail.com

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Dear Editor,

We read with interest the paper on the endoscopic treatment of a duodenal perforation related to a plastic biliary stent that was reported by Roa et al. (1). Now, we would like to add some comments about biliary stents as inserted during ERCP to palliate malignant jaundice in hilar strictures. It is our belief that the most convenient strategy in non-operable patients should be the insertion of at least one uncovered self-expanding metal stent (2).

Metal stents are better suited to the angulations found in intrahepatic bile ducts. Only the anterior segment of the right hepatic duct has a relatively straight configuration. Usually, the insertion of a 10 cm long, 8 mm in diameter metal stent should be appropriate.

Straight plastic stents in malignant strictures at the hepatic hilum pose more problems, mainly derived from their stiffness (Figure 1). While a length of 9 cm could be enough for distal strictures (3), at least 12 cm are usually required to bridge strictures at the hepatic hilum.

In addition, stent length is usually measured between the two flaps, and so their actual length is somewhat longer.

Sometimes stents having a 8.5 French diameter are used. These stents may have slightly more flexibility than those with a 10 French diameter, although they offer a smaller drainage volume.
Many stent-related duodenal perforations reported in the literature happened in patients with tumoral hilar strictures (4, 5).

Plastic stents are more prone to migrate distally because of the tortuosity of these strictures, together with the rigidity of the stent. The stent then remains stuck without any mobility between the tumor in its upper part and the duodenum in its lower part, leading to perforation.

Finally, we would like to congratulate Roa et al. (1) for their skill to extract the stent that had perforated the duodenum, for closing this perforation with clips, and for treating the retroperitoneal collection by means of interventional endoscopic ultrasound.

REFERENCES
Figure 1. Straight plastic biliary stents. A and B have a 10-French diameter, and C a 8.5-French diameter. As may be seen, actual length is somewhat longer than labeled, as total length is measured between the two flaps. There is a wide variety of straight stents. The stents shown in the picture have a middle bend to fit the common bile duct anatomy. It can also be observed that both the upper and lower ends have a certain stiffness that prevents them from adapting correctly to the tortuosities that usually present tumors at the hepatic hilum.