New endoscopic suturing device for closure of chronic gastrocutaneous fistula in an immunocompromised patient

A 46-year-old man with AIDS received a percutaneous endoscopic gastrostomy (PEG) tube in October 2009. His condition improved, and the PEG tube was removed in May 2010. Afterwards, the patient developed a persistent gastrocutaneous fistula at the site of the previous PEG. Multiple attempts to close the fistula with endoscopic clips, gastropexy, and an over-the-scope clip (Ovesco Endoscopy AG, Tübingen, Germany) failed. Upper endoscopy revealed a gastrocutaneous fistula 5 mm in diameter.

The fistula tract was treated with argon plasma coagulation (Fig. 1). Three stitches were then made with an Overstitch endoscopic suturing device (Apollo Endosurgery Inc., Austin, Texas, USA), completely closing the fistula (Fig. 2a, b; Videos 1–3). The leakage stopped after the procedure, and repeat endoscopy demonstrated good closure of the fistula (Fig. 3). Management of patients with persistent gastrocutaneous fistulas can be very challenging.
difficult, especially in debilitated, immuno-compromised patients. Multiple devices and techniques have been used in the past with only limited success [1–5]. Our patient was not a good surgical candidate because of his underlying illness. In this situation we decided to use the newly developed Overstitch suturing device. The Overstitch is frontloaded to a double-channel endoscope and then introduced into the stomach. The device utilizes a needle with an attached suture, which can be reloaded into the suturing device inside the stomach an unlimited number of times. It also uses intracorporeal knot cinching without the need to remove the suturing device from the stomach. The Overstitch device allows tissue defects of various sizes to be closed with continuous or separate sutures. The tightness of the suture is regulated by the physician performing the procedure.

In conclusion, this is the first report of successful clinical use of the new Overstitch endoscopic suturing device in Europe. Overstitch is simple to assemble, easy to work with, and can potentially be used for a variety of procedures requiring suturing inside the gastrointestinal tract.

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J. R. Armengol-Miro1,2, J. Dot1,2, M. Abu-Suboh Abadia1,2, M. Masachs1,2, J. C. Salord1,2, J. Armengol Bertroli1,2, A. Benages1,2, S. V. Kantsevoy2,3

1 Valld’Hebron University Hospital, Barcelona, Spain
2 World Institute for Digestive Endoscopy Research (W.I.D.E.R.), Barcelona, Spain
3 Institute for Digestive Health and Liver Diseases, Mercy Medical Center, Baltimore, Maryland, USA

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Corresponding author

S. V. Kantsevoy, MD, PhD
Institute for Digestive Health and Liver Diseases
Mercy Medical Center
Suite 718, P.OB 7th floor
301 St Paul Place
Baltimore
Maryland 21202
USA
Fax: 410-659-1162
skan51@hotmail.com