Endoscopic extraction of a buried bumper by use of an insulation-tipped knife and a sphincterotome

Michael Weaver
Vladimir Kushnir

Follow this and additional works at: https://digitalcommons.wustl.edu/open_access_pubs
A 67-year-old man had a history of Parkinson’s disease treated by carbidopa/levodopa enteral suspension delivered through a gastrostomy tube with jejunal extension. After he experienced a fall, the jejunal tube extension was noted to be broken, and an upper endoscopy was performed for replacement of the jejunal tube extension.

During endoscopy the patient was noted to have a buried bumper, and he was referred for endoscopic removal of the gastrostomy tube (Video 1, available online at www.VideoGIE.org).1,2

Figure 1. When the stomach was entered, a previously placed 15F gastrostomy tube was noted with a 9F jejunal tube extension. The internal bolster was completely buried beneath the gastric mucosa.

Figure 2. An insulation-tipped electrosurgical knife was used to make an initial incision in the gastric mucosa by use of Endocut, Effect 2, and Forced Coag 25 settings.

Figure 3. Subsequent incisions were made in a 4-quadrant fashion by use of the insulation-tipped knife to access deeper layers.

Figure 4. A sphincterotome was placed through the gastrostomy tube from the skin side. It was subsequently bowed and controlled to provide extension of the initial insulation-tipped knife incisions by use of Endocut, Effect 2, and Forced Coag 50 settings.
**PROCEDURE**

An upper endoscopy was performed with GIF-HQ190 and GIF-2TH180 endoscopes (Olympus America, Chelmsford, Mass, USA) and on insertion a buried bumper was noted with a jejunal tube extension (Fig. 1). An insulation-tipped knife was inserted through the endoscope, and with the use of endoscopic submucosal dissection settings (Endocut 200, Effect 2, Forced Coag 25), cuts were made in a 4-quadrant fashion around the gastrostomy tube (Figs. 2 and 3). The jejunal tube extension was removed, and a wire was placed from the skin side through the gastrostomy tube to provide access for extraction balloons and a sphincterotome. Attempts to remove the gastrostomy tube with a biliary balloon and extraction balloon were unsuccessful. A sphincterotome was inserted through the gastrostomy tube from the skin side and bowed to provide cuts in a 4-quadrant fashion in the appropriate tissue planes by use of these settings: Endocut, Effect 2, Forced Coag 50 (Fig. 4). A rat-tooth forceps was used to remove the gastrostomy tube (Fig. 5), and the resulting stoma was closed with endoscopic suturing.

**OUTCOME**

The buried bumper was successfully treated endoscopically with a combination of endoscopic submucosal dissection and conventional techniques and by endoscopic suturing without adverse events. Two weeks later, a new gastrostomy tube with jejunal extension was placed in a new location to facilitate the delivery of carbidopa/levodopa, and a well-healed scar was noted in the gastric body (Fig. 6).

**DISCLOSURE**

This research was supported by Washington University DDRCC (NIDDK P30 DK052574). All authors disclosed no financial relationships relevant to this publication.

**REFERENCES**


Division of Gastroenterology, John T. Milliken Department of Medicine, Washington University School of Medicine, St. Louis, Missouri, USA.

If you would like to chat with an author of this article, you may contact Dr Weaver at weavermichael@wustl.edu.

Copyright © 2020 American Society for Gastrointestinal Endoscopy. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

https://doi.org/10.1016/j.vgie.2019.12.012