A simply placed percutaneous intragastric trocar for use of laparoscopic tools in endoscopy

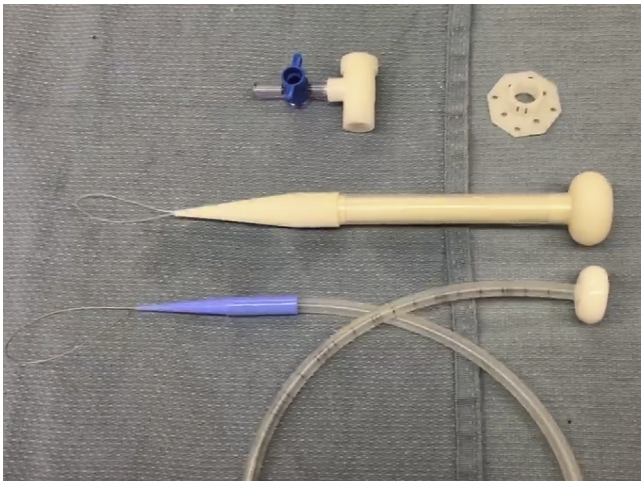

Figure 1. The percutaneous intragastric trocar alongside a standard 20F PEG tube.

The performance of transoral therapy is limited by the need to achieve triangulation for tissue exposure, dissection, and instrumentation and by the small channel size of an endoscope. A novel transgastric trocar (EndoTAGSS, Kansas City, Kansas, USA) is explained in this video (Video 1, available online at www.giejournal.org) and is used in a porcine model with a proven endoscopic technique analogous to percutaneous endoscopic gastrostomy (PEG) tube placement. The device allows for triangulation and novel intralumenal techniques in a dual endoscopic/laparoscopic operating field governed by the gastroenterologist. This video summarizes device placement, applications, and tract closure for this novel system. Placement of the intragastric trocar under endoscopic visualization is similar to a pull-PEG (Fig. 1). Once in place, the tapered headpiece is exchanged for a self-sealing introducer cap, and laparoscopic tools may be inserted through the device into the stomach. The techniques of endoscopic submucosal dissection using forceps traction, stapling at the gastroesophageal junction, and using full-thickness resection with a laparoscopic stapler are shown. Closure of the trocar tract with 2 full-thickness sutures using the device's built-in needle guides is demonstrated. Animal studies were approved by the Pine Acres Rabbitry Farm Institutional Animal Care and Use Committee (IACUC) and followed the American Physiological Society guidelines for the care and use of animals. This novel percutaneous intragastric trocar enables improved tissue manipulation and endolumenal use of laparoscopic devices. The system is placed by use of a safe and familiar technique, and it may simplify technically demanding endoscopic procedures.

This video can be viewed directly from the GIE website or by using the QR code and your mobile device. Download a free QR code scanner by searching "QR Scanner" in your mobile device's app store.

DISCLOSURE

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