

A new device for the introducer technique for percutaneous endoscopic gastrostomy placement

Percutaneous endoscopic gastrostomy (PEG) is the preferred method for achieving enteral access for patients requiring long-term nutritional support [1]. The popular PEG pull-through technique is not adequate for patients with obstructive head and neck or esophageal cancer because of the higher morbidity associated with the technique, including the risk of malignant implantation at the stoma. The introducer technique is then indicated as described by Russell et al. [2]. This involves direct puncture of an inflated stomach through the anterior abdominal wall, followed by the introduction of a guide wire and dilation of the newly created tract. The introduction system is removed by peeling it off.

It is believed that gastropexy provides safer conditions for direct puncture of the stomach, in particular for the insertion of larger gastrostomy feeding tubes [3–6]. We believe that there is a simple and cheaper alternative to the use of a guide wire, dilator, and “peeling off” devices. This is a development of a trocar system, consisting of an external sheath with a lateral cleft. The usual three-sided, sharply pointed end of the internal shaft of the trocar system is replaced by a cone-shaped end, in order to reduce the cutting trauma to the abdominal and gastric walls (● Fig. 1).

Two gastropexy stitches are placed under endoscopic guidance using a double-needle puncturing device [3,4]. The trocar system is then advanced through a 10-mm skin incision between the fixation sutures and into the transilluminated and inflated stomach under endoscopic guidance. The internal shaft is removed and a 20-Fr ballooned tube is introduced through the lateral cleft. Once the tube is in place the balloon is inflated and the external sheath of the trocar is pulled out as the feeding tube is slid out through the lateral cleft (● Fig. 2, 3).

Another advantage of this technique is the potential availability of the device in different diameters, allowing insertion gastrostomy tubes of various sizes.

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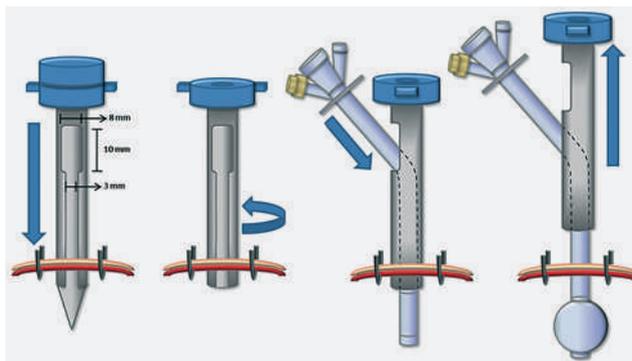


Fig. 1 Schematic representation of the trocar system with a cone-shaped internal shaft and a lateral cleft for the insertion of the feeding tube.



Fig. 2 External and endoscopic (inset) views just after the puncture of the inflated and transilluminated gastric cavity by the trocar system. Note that a gastropexy has been performed previously.

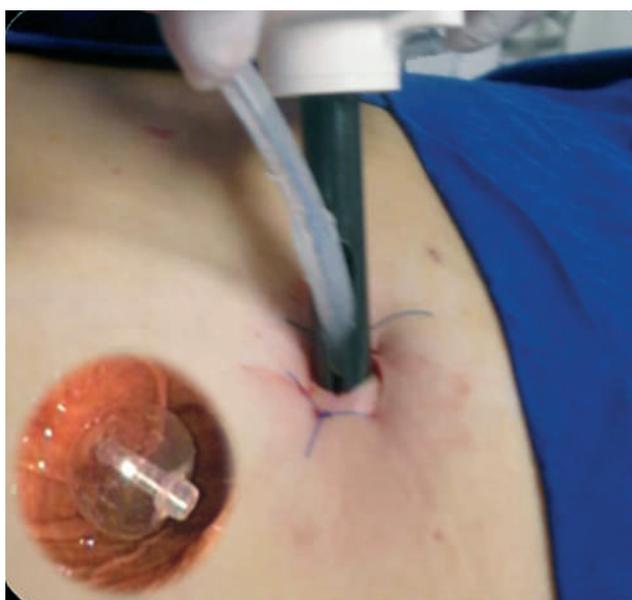


Fig. 3 As the balloon is inflated the tube can be kept in the stomach by sliding it through the lateral cleft while the external shaft of the trocar is pulled out.

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DOI 10.1055/s-2007-966615
Endoscopy 2007; 39: E274–E275
© Georg Thieme Verlag KG Stuttgart · New York ·
ISSN 0013-726X

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