

A Simple Single Endoscopy Technique to Replace Percutaneous Endoscopic Gastrostomy Tubes

The procedure of choice today for long-term enteral feeding in patients with swallowing disorders is percutaneous endoscopic gastrostomy (PEG) (1–3). However, the longer the tubes are in place, the more often PEG replacement is needed, due to dysfunctions such as plugging, leakage, or fracture (4,5). Replacement has previously usually required two endoscopies, and often a new percutaneous gastric puncture. We describe here a simple one-step replacement technique which only needs a single endoscopy and does not require a new puncture. A Freka 15-Fr PEG Universal Gastric Set (Fresenius, Stans, Switzerland) was used for initial PEG and replacement. The replacement procedure consists of three steps.

1. The malfunctioning tube is cut at about 5 cm above the abdominal wall, and fixed with a Péant clamp just at the point of skin entry. The steel needle is withdrawn from the plastic puncture cannula of the new PEG set. The guide wire is inserted into the cannula, and about 20 cm are pulled through (Figure 1). The cannula, with the guide wire hanging from its tip, is then completely introduced into the old tube. The wire is knotted around the old tube and fixed tightly, so that the puncture cannula, with some resistance, can still be moved against the old tube (Figure 2).

2. The gastroscope is passed into the stomach, and the inner retention device of the old tube is caught with a polypectomy loop. While the old tube is pulled into the stomach, the new plastic puncture cannula attached to the end of it is introduced through the original gastrostomy fistula (Figure 3). As the old tube is pulled further up, the puncture cannula slips out of it, and is then in place for pulling through of the new PEG tube. The guide wire is still fixed to the old tube, and is drawn out of the mouth with the endoscope.

3. The new tube is then placed as usual.

Between June 1992 and December 1994, we performed nine PEG replacements using the technique described above, without any complications or technical problems. Tube feeding was safely resumed within six hours in all patients. The method described is a safe, simple, and well-tolerated PEG replacement technique. Tube feeding can be resumed immediately, and complications associated with a new percutaneous gastric puncture are completely avoided.

Acknowledgement

The illustrations were kindly provided by Fresenius, 6370 Stans, Switzerland.

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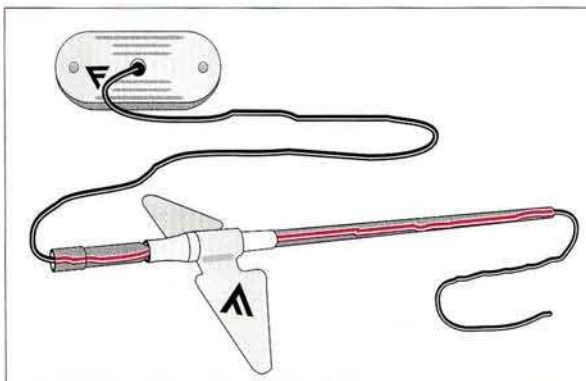


Figure 1: The guide wire is pulled through the plastic puncture cannula.

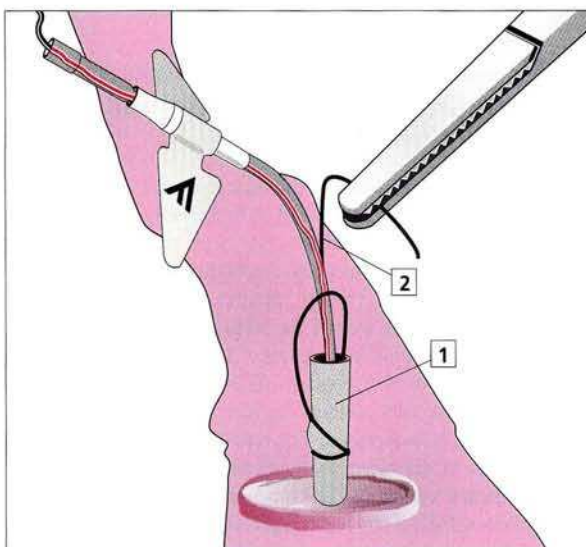


Figure 2: The puncture cannula is introduced into the old tube (1). The guide wire (2) is tightly knotted around the old tube.

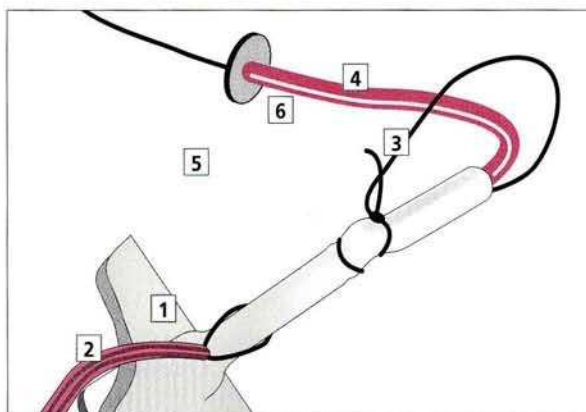


Figure 3: The inner retention device of the old tube (1) is caught with a polypectomy loop (2). The guide wire (3) is pulled through the puncture cannula (4) and fixed to the old tube. 5: inner stomach wall; 6: gastrostomy fistula tract.

References

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