UNDERSTANDING ENTEROSTOMY TUBES CLASSIFICATION: BY PLACEMENT TECHNIQUES



Enterostomy access refers to the use of gastrostomy, jejunostomy and gastrojejunostomy for enteral feeding.1

 Although gastrostomy is most commonly practiced, jejunostomies are indicated when the GI tract is functional, but there is an obstruction in the proximal part of the gut that precludes the placement of a gastrostomy tube.²

Enterostomy tubes can be placed using 4 methods:³



Endoscopic techniques



Radiological techniques



Surgical techniques



Introducer technique

The choice of the procedure depends on patient characteristics, anatomic considerations and surgeon preferences. 4

Here we shall focus on placement techniques for gastrostomy*.

Endoscopic technique

Percutaneous endoscopic gastrostomy^{5,6}

- Involves an endoscopic procedure using an endoscope
- Requires sedation and stomach insufflation with air
- 'Push' and 'pull' techniques to establish gastrostomy

Radiological technique

Percutaneous radiologic gastrostomy (PRG) or radiologically inserted gastrostomy (RIG)⁵

- Radiologically/fluoroscopically/ultrasound/CT guided placement
- Gastropexy may be performed
- Requires sedation and stomach insufflation with air using a nasogastric tube
- Gastrostomy device inserted after sequential dilation, or passage of a guide wire up the esophagus and the feeding tube device drawn back down

DID YOU KNOW?

is rarely performed in children. Usually, a pediatrician, surgeon and gastroenterologist are consulted regarding the feasibility of the procedure in children.5

Radiologically inserted gastrostomy and endoscopic technique

Surgical laparotomy⁵

Surgical technique

- Insertion of the tube/device
 - through laparotomy Gastropexy may be performed
 - Device may be sutured in
- Laparoscopic guidance

Laparoscopic gastrostomy⁵

- Gastropexy performed
- Insertion and confirmation of the
- position of gastrostomy tube or device through a laparoscope Laparoscopic-assisted percutaneous endoscopic gastrostomy (LA PEG)
- Laparoscopic guidance
 - Endoscopic procedure using a gastroscope
 - 'Push' and 'pull' techniques to establish gastrostomy
- Introducer technique

Gastropexy is performed⁷ An incision is made with a scalpel in

- the central part that is fixed and the
- guidewire is inserted into the stomach through the fistula created through the gastropexy⁷ The pull technique of PEG tube insertion involves use of transoral tube passage,
- placed directly from the abdominal wall⁷ Allows endoscopic, laparoscopic or radiologic guidance of gastric jejunal or gastric-jejunal feeding tube⁸

Fistula is expanded adequately using

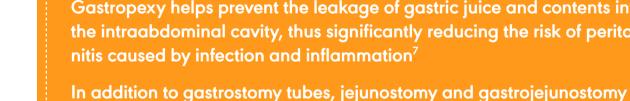
a dilator and the fistula catheter is

implantation.9 • PEG tubes placed in head and neck cancer patients can have complication rates as high as 50%.9

resulting in PEG site issues such as cellulitis, abscess, fasciitis and tumor

Hence, a safer procedure like the introducer technique can reduce the burden

on patients and result in fewer complications. 7 **DID YOU KNOW?**



Gastropexy helps prevent the leakage of gastric juice and contents into the intraabdominal cavity, thus significantly reducing the risk of peritonitis caused by infection and inflammation⁷

tubes can also be inserted using endoscopic, radiological and surgical methods, using the introducer technique.

OUR SOLUTION AVANOS* enteral feeding tubes can be placed using Endoscopic, Radiologic or Laparoscopic techniques.



gastrostomy, jejunal and gastric-jejunal feeding tubes, for minimized trauma and enhanced patient comfort. 8

post-operative complications8

Confidently secure the stomach using absorbable sutures

Avanos* Saf-T-Pexy* fasteners8

Also, AVANOS*offers the solution of an initial placement kit (IPK) for the introducer technique, allowing Endoscopic, Radiologic or Laparoscopic placement of

All essential tools for an efficient,

secure and less invasive placement⁸



Uses simple, intuitive tools

Reduced surgical

steps and fewer incisions8

Lowered risk for surgical and

with audible confirmation of suture lock

 Promotes patient hygiene with easy-to-clean bolsters Smooth, round retention device for patient comfort

One-handed , on-demand T-bar deployment

- Protects clinician from inadvertent needle sticks
- for gastrostomy

Reduced need for repeat passing over guide wire

Avanos*Serial dilators8

 Peel-away design facilitates tube placement Made to fit MIC* and MIC-KEY* feeding tubes

Reach the desired dilation with a single telescoping device

- *With gastrostomy being the most commonly practiced method for enteral feeding, we shall discuss placement techniques

CT: computerized tomography

1. Sciencedirect. Enterostomy tube [Internet]. [2007; cited 2020 Nov 03]. Available from: https://www.sciencedirect.com/topics/nursing-and-health-professions/enterostomy-t ube#:~:text=There %20are%20three%20well%2Daccepted,of%20enterostomy%20tubes%20in%20children%3A&text=Surgical&text=Percutaneous%20endoscopic%20gastrostomy%20(PEG)&text=Percutaneous %20radiologic%20gastrostomy%20(PRG) 2. D'Cruz JR, Cascella M. Feeding Jejunostomy Tube. [Updated 2020 Aug 27]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK562278/ 3. Adeyinka A, Rouster AS, Valentine M. Enteric Feedings. [Updated 2020 Jul 28]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK532876 4. Society of American Gastrointestinal and Endoscopic surgeons. Laparoscopic gastrostomy [Internet]. [cited 2020 Nov 02]. Available from: https:// www. sages.org /wiki/ laparoscopic- gastrostomy/#: ~:text=Placement% 20of%20a%20 gastrostomy% 20tube, most % 20 common % 20 pediatric % 20 surgery % 20 procedures. & text = Laparos copic % 20 assisted % 20 gastrostomy % 20 tube % 20 placement, to % 20 the % 20 anterior % 20 abdominal % 20 wall for the first placement of the fir5. ACI NSW gency for clinical innovation. A Clinician's Guide: Caring for people with gastrostomy tubes and devices From pre-insertion to ongoing care and removal [Internet]. [2015 Mar; cited 2020 Jul 21]. Available from: https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0017/251063/gastrostomy_guide-web.pdf 6. Sciencedirect. Percutaneous endoscopic gastrostomy tube [Internet]. [2011; cited 2020 Nov 02]. Available from: https://www.sciencedirect.com/topics/nursing-and-health-professions/percutaneous-endoscopic-gastrostomy-tube 7. Kawaura K, Itoh T, Hamada K, Kitakata H, Azukisawa S, Okamura H, Urashima S, Sakurai M, Ishizaki M. Selection of Methods for Percutaneous Endoscopic Gastrostomy (PEG) that is more Safety and Useful Techniques on the Patients. Clinical Investigation. 2017;7(3):111-8. 8. Data on file. DH_Introducer_FINAL_USA_DH155 EC15636_90D. 9. Foster JM, Filocamo P, Nava H. et al. The introducer technique is the optimal

method for placing percutaneous endoscopic gastrostomy tubes in head and neck cancer patients. Surg Endosc. 2007; 897-901. *Registered Trademark or Trademark of Avanos Medical, Inc., or its affiliates. © 2018 AVNS. All rights reserved.