

Versatility of Percutaneous Interventional Radiology Gastrostomy: Why Not the First Option!

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Introduction

Gastrostomy means alternative access for support in patients with prolonged periods of swallowing disorders become clearer. Gastrostomy access can be performed by surgery, endoscopy or percutaneous interventional radiology (IR) [1, 2]. Surgical gastrostomy has the highest rate of complications when compared to endoscopic or percutaneous IR approaches [1].

Percutaneous IR gastrostomy (PIRG) is usually indicated when percutaneous endoscopy gastrostomy (PEG) is contra-indicated (head and neck cancer, with esophageal obstruction, sedation in neurodegenerative diseases), or it is failed, either due to difficulty in transillumination, interposition of colon loops or endoscopist insecurity [1–3]. Despite scarcity of randomized PIRG studies, the literature shows evidence of higher success rates with similar mortality [4]. The appropriate combination of multimodal image guidance (fluoroscopy, computed

tomography and ultrasound) combined with technical improvement and interventional devices variety has improved PIRG performance [1–3]. Abdominal ultrasound in B-mode and Doppler has been a crucial ally for enabling anatomical discrimination, avoiding inadvertent punctures of the gastroepiploic and epigastric arteries [1–4].

Partial gastrectomy is a challenge for any gastrostomy technique. Chihiro Itou et al. retrospectively evaluated 15 patients with partial gastrectomy who required PIRG; seven patients underwent conventional technique while the other seven underwent modified PIRG with no gastropexy. When the stomach was sufficiently inflated to distend below the left anterior surface of subcostal margin, PIRG with gastropexy was conventionally performed by the Seldinger technique. When the stomach was still highly positioned and/or overlapped by the other organs, some adjunctive maneuvers, such as hydrodisplacement, balloon support or oblique head puncture or left intercostal puncture, were used as a modified gastrostomy, from the combination of imaging methods [1, 2]. The technical success rate was 100% (7/7) in the conventional group and 85.7% (6/7) in the modified group. Although one patient transhepatic access did not work on modified group, no major complications occurred in any patient during average follow-up of 108 days [1].

This article brings to light the full power of modern interventional radiology, which combines distinct techniques, minimally invasive devices and the multimodal approach guided by radiological imaging, since the introduction of the percutaneous technique in 1980 [1–6].

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PIRG has been shown to be safe, effective and well tolerated by patients, due to the use of low-gauge tubes and avoidance of the common respiratory decompensation typically present in PEG due to deeper sedation. However, smaller gauge tubes are less painful but seem to have a higher risk of clogging [3, 6].

Although interventional radiology is the great innovation of contemporary medicine, the specialty is still in the consolidation phase compared to other techniques that are still considered the gold standard. If in challenging situations we can perform PIRG as safely and feasibly as standard patients within PEG, why should only those difficult approach cases be addressed to IR? Nevertheless, more articles and data should be published; we really believe this article encourages us to carry out more PIRG procedures and thus endorse our efforts in the dissemination and awareness of patients and especially of multidisciplinary medical teams.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent For this type of study, informed consent is not required.

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