Letter to the Editor

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Transpyloric misplacement and intramural dislocation: two novel complications related to balloon-type G-tubes

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To the Editor:

Percutaneous endoscopic gastrostomy (PEG) remains the standard enteral nutrition access in clinical practice with limited complication potential. Beyond mushroom and/or disk-tip tubes (pull technique), in the introducer technique balloon-type G-tubes are implanted, warranting regular, often nurse-led exchanges. Herein, two novel complications related to tube exchange are presented.

A frail male patient with advanced diffuse idiopathic skeletal hyperostosis (DISH)–related dysphagia reported on worsening enteral nutrition tolerance (intermittent administration) due to abdominal pain since the last bedside tube exchange by a specialized nutrition team in the nursing home. On endoscopy, transpyloric misplacement likely related to inadvertent duodenal guidewire insertion (Fig. 1A), resistant to repositioning by external traction (Fig. 1B), was detected. Endoscopy-directed repositioning was easily performed after balloon deflation and withdrawal into the stomach, and other potential causes for deterioration of nutrition tolerance, such as ulcer disease, were excluded. In retrospective, this

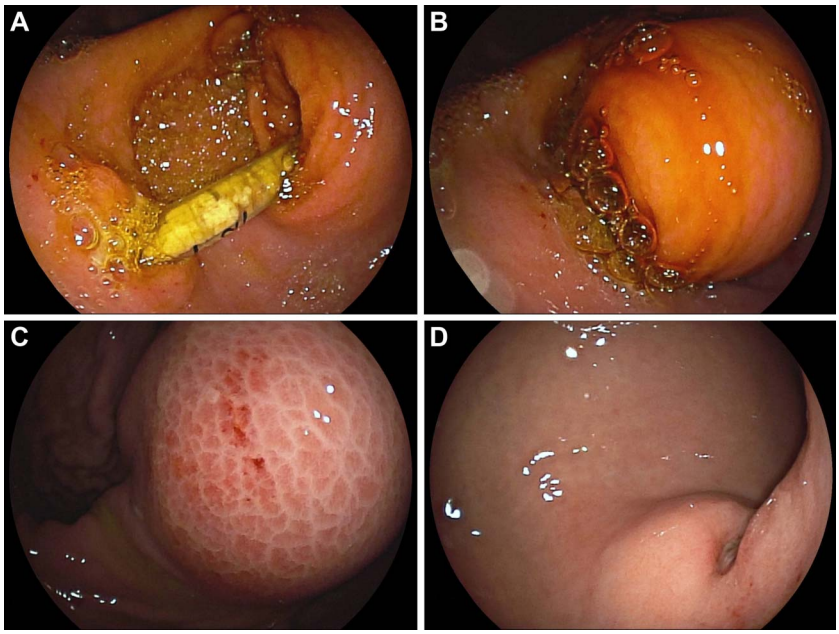

Figure 1. Patient 1: (A) Endoscopic visualization of transpyloric misplacement of a balloon-type G-tube, causing discomfort due to inadvertent duodenal instead of gastric administration of the enteral nutrition regimen. (B) Failed repositioning by external pulling without balloon deflation (not shown uncomplicated repositioning under endoscopic guidance after balloon deflation). Patient 2: (C) Marked edema and hyperemia along endoscopic impression of a "subepithelial lesion" consistent with intramural balloon dislocation. (D) The latter was confirmed after balloon deflation, resulting in collapse of the lesion, and the PEG tract became visible in the vicinity.

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uncommon and as yet unreported complication may have been avoided by strictly keeping attention to the distance markings during tube exchange, although the mere distance between the PEG exit point and the pylorus was indeed short.

The second patient with a history of head and neck cancer presented with high-grade abdominal pain. Of note, the patient had only been discharged from a nearby hospital the same day after reinsertion of a balloon-type G-tube using the same PEG stoma after external loss of the previous tube during care measures. CT scans indicated minor free abdominal and intramural air in the stomach along suspected tube dislocation. This was confirmed during urgent endoscopy under CO_2, revealing a markedly edematous and hyperemic "*pseudotumor*" in the antrum (Fig. 1C). After balloon deflation, the stoma entry site was found in the vicinity (Fig. 1D), and the balloon-type tube was repositioned correctly under endoscopic vision, obviating the need for surgery. It remains unclear why this complication occurred despite endoscopic guidance of tube exchange. On a speculative basis, incomplete balloon blocking and/or too aggressive tube retraction during care measures postendoscopy might be discussed.

To the best of our knowledge, transpyloric misplacement and intramural dislocation have not yet been reported in the literature and represent two novel, clinically relevant complications related to balloon-type G-tubes.[1] Nevertheless, similar to more common G-tube–related complications, such as buried bumper syndrome, strict adherence to tube exchange protocols and proper tube care are of utmost importance.

Conflicts of interest

The authors report no conflicts of interest.

Reference

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