Endoscopic management of buried bumper syndrome: the balloon-dilation pull technique

Percutaneous endoscopic gastrostomy (PEG) placement facilitates safe and effective enteric feeding in the critically or chronically ill. However, long-term PEG feeding, improper feeding tube care, and potentially smaller or harder discs have been associated with development of buried bumper syndrome in approximately 1.5% of patients [1–4]. Although more and more techniques have been described and even dedicated tools developed [1–4], simple balloon-assisted buried bumper management may carry several advantages [5].

A 68-year-old patient with a history of hemiparesis following a stroke was referred to our department for a leaking PEG tube with jejunal extension. Owing to increased local discomfort, a diagnosis of buried bumper syndrome was considered. Upper gastrointestinal endoscopy was performed, showing a completely buried bumper (▶Fig. 1) with only the jejunal extension visible from inside the stomach (▶Video 1). The decision for endoscopic extraction under midazolam sedation was made after discontinuation of anticoagulants. The jejunal extension was removed, the PEG tube was cut, and a guidewire was advanced in antegrade fashion through the PEG tube into the gastric lumen. The guidewire was grasped with a standard polypectomy snare, exteriorized, and back-fed into the gastroscope. A standard 18-mm dilation balloon was inserted over the guidewire through the scope and into the shortened PEG tube for two-thirds of its length (▶Fig. 2). After repositioning and fully inflating the balloon (▶Fig. 3), the buried bumper was extracted transorally with minimal discomfort using continuous firm traction (▶Fig. 4). A new PEG tube was tethered to the guidewire and placed through the same tract, after which the jejunal extension was reinserted (▶Fig. 5).
Our case illustrates that buried bumper syndrome can be managed by simple endoscopic tools that are readily available, cheap, easy to use, and without the need for tedious incision-based removal.

Competing interests

Michiel Bronswijk received grants from Prion Medical, Taewoong as well as Takeda, and has consultancy agreements with Prion Medical – Taewoong. The remaining authors have no potential conflicts of interest to declare.

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Endoscopy
DOI 10.1055/a-1775-7786
ISSN 0013-726X
published online 2022
© 2022. Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

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Fig. 4 Endoscopic view after successful transoral extraction of the buried bumper, showing the bumper fixed onto the distal third of the through-the-scope balloon.

Fig. 5 After the new percutaneous endoscopic gastrostomy tube has been placed, the jejunal extension is grasped and placed deeply into the proximal jejunum.