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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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.