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

Percutaneous endoscopic gastrostomy (PEG) placement facilitates safe and effective enteral 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.

**The authors**

Michiel Bronswijk1-3, Marlies Maly4, Christophe Snauwaert5,6, Paul Christiaens1

1 Department of Gastroenterology and Hepatology, Gent University Hospital, Belgium
2 Department of Gastroenterology and Hepatology, University Hospitals Leuven, Belgium
3 Imelda Clinical GI Research Center, Bonheiden, Belgium

**References**