

## Direct endoscopic percutaneous jejunostomy placement with double balloon enteroscopy

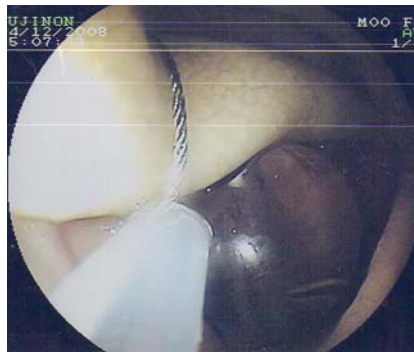
Direct percutaneous endoscopic jejunostomy (DPEJ) provides an alternative modality of enteral feeding when percutaneous endoscopic gastrostomy (PEG) insertion is not feasible [1,2]. It also has a reduced risk of complications, including aspiration, when compared with PEG [3]. The success rate of DPEJ is reportedly only 68%, mainly secondary to inadequate transillumination or failure to pass the scope into the jejunum [4]. Serious complications, including intestinal perforation and bleeding, are also reported on removal of DPEJ by manual traction [4,5]. We report the first case of successful DPEJ insertion by double balloon enteroscopy (DBE), and successful subsequent DPEJ tube change by DBE.

A 25-year-old man with oropharyngeal dysphagia due to hypoxic brain injury underwent PEG insertion for long-term enteral feeding. However, the patient required recurrent prolonged hospital admissions for treatment of severe aspiration pneumonia. A trial of jejunal feeding was considered.

After the PEG tube was removed, a DPEJ was placed using DBE. The enteroscope was passed anterograde into the jejunum until an ideal position was identified by adequate transillumination and finger invagination (approximately 1.5 m distal to the pylorus). Both balloons were inflated and a 21-gauge “finder needle” was inserted into the jejunal lumen and grasped by a snare to secure the position. The DPEJ tube was then placed using a 20-Fr pull method PEG tube kit using a modified technique as previously described [4]. On review at 24 months no local complications had occurred, the patient’s nutritional status remained stable, and there had been a dramatic decrease in number of hospital admissions. At this time the external DPEJ tube was worn. In an uneventful procedure, the tube was removed and exchanged for a balloon-type



**Fig. 1** Jejunostomy site identified on repeat anterograde double balloon enteroscopy.



**Fig. 2** Simultaneous removal of internal bumper of old jejunostomy tube and inflation of balloon and positioning of new feeding tube via double balloon enteroscopy under direct endoscopic vision.

PEG/J button, again using anterograde DBE (Figs. 1 and 2).

In conclusion, utilization of DBE provides access to more distal parts of the jejunum and maximizes the chance of identifying an ideal DPEJ insertion site; it also allows safe exchange of the DPEJ tube. Future studies are awaited to compare the success rates, complication rates (in particular aspiration risk), and clinical outcomes (including nutritional status) between DPEJ by push enteroscope or colonoscope and DBE.

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