

Retrieval of impacted esophageal stent in the ileum with double balloon enteroscopy : a novel technique

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A 36-year-old man presented with a two day history of epigastric abdominal pain and vomiting. His medical history was significant for a sleeve gastrectomy in 2010 complicated by post-operative gastroesophageal junction leak with four prior attempts at endoscopic stent therapy with OverStitch™ fixation. A plain film of the chest identified three proximally placed self-expandable stents at 25 cm from entry. Additionally, one Niti-S stent (Taewong Medical, Seoul, Korea) was noted to have migrated distally to the ileum. Esophagogastroduodenoscopy (EGD) was carried out and the three proximal stents were removed under fluoroscopic guidance.

Antegrade double balloon enteroscopy (EN-450T5/20 ; Fujinon Co.Ltd., Saitama, Japan) under fluoroscopic guidance was then performed and the scope was advanced to the level of the mid ileum by using the push-and-pull technique (1). The distally migrated esophageal stent was identified and found to be impacted in an area of matted bowel adjacent to a percutaneous drain previously placed for a fluid collection (Fig. 1). The stent was discovered to be in a poor location around a turn of bowel such that the proximal end could not be visualized and therefore it was unable to be retrieved with biopsy for-

ceps. An attempt was then made at pushing the stent distally from within the stent lumen using two SpyBite® Biopsy Forceps (Boston Scientific, Natick, Massachusetts, USA). This was done in an attempt to try and visualize the proximal end but was unsuccessful as the stent could not be forced past the area of matted bowel. Further efforts were made to try and reposition the stent but all proved to be ineffective.

Lastly, it was decided to pass the double balloon enteroscope through the stent lumen and inflate both the endoscope and overtube balloons in order to drag the stent proximally with the scope. The endoscope balloon was inflated inside the distal lumen of the stent allowing for traction. The overtube balloon was then inflated across the proximal edge of the stent for protection of bowel mucosa as the stent was pulled proximally. The scope was withdrawn with both balloons remaining inflated (Fig. 2). Once in the more proximal jejunum, the

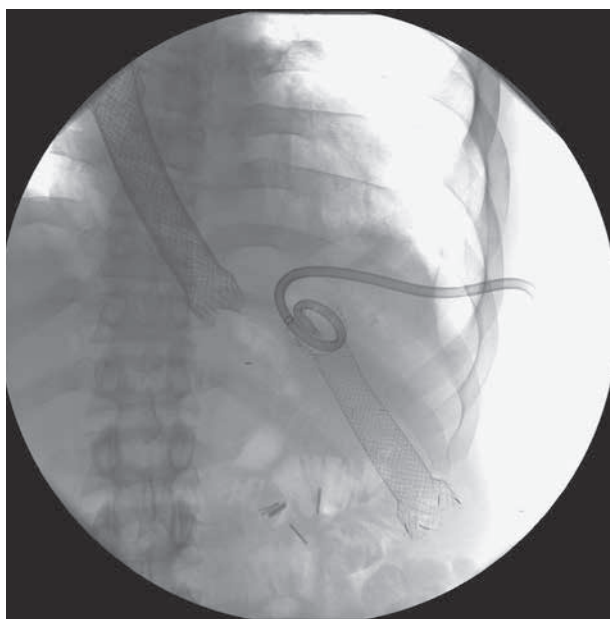


Fig. 1.

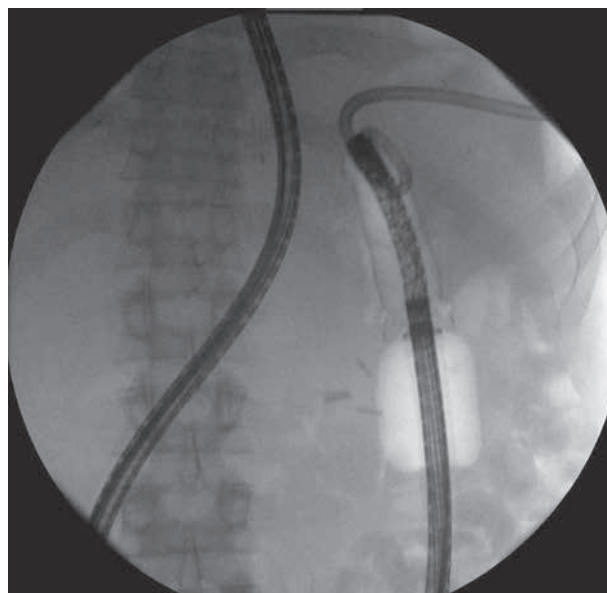


Fig. 2.

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balloons were deflated and the stent was successfully retrieved with biopsy forceps. The patient tolerated the procedure well with no complications and was discharged the following day.

Distal migration is a well described complication of esophageal stent placement (2). There have been reports of stent migration to the small bowel which required laparoscopic removal after failed trials of rectal passage (3). We present the first reported case of this novel technique for retrieval of an impacted esophageal stent from the ileum with the use of double balloon enteroscopy. This case helps add to the expanding literature on therapeutic techniques and implications for double balloon enteros-

copy. Endoscopists may utilize this technique to help patients avoid more invasive surgical procedures.

References

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