

## Endoscopic removal of migrated esophageal stent – the “grasper and pusher” method

A 79-year-old man with metastatic adenocarcinoma of the cardia was submitted to palliative chemotherapy and esophageal stenting for relief of dysphagia. After the fourth cycle of chemotherapy he was admitted to the emergency department complaining of dysphagia. At endoscopy a significant regression of the lesion size and migration of the stent into the stomach were noticed. The standard gastro-scope (9.8mm) was easily inserted into the gastric chamber. In order to facilitate the use of the proximal lasso system to close the proximal end of the stent, the standard gastro-scope was switched to the therapeutic scope, and a 10-Fr biliary stent pusher was inserted into the largest operational channel followed by a grasp forceps (● **Fig. 1**). The lasso was grasped and pulled back into the pusher while the endoscopist's assistant advanced it against the stent. This maneuver allowed the constraining of the proximal end of the stent, facilitating its removal (● **Fig. 2** and ● **Video 1**).

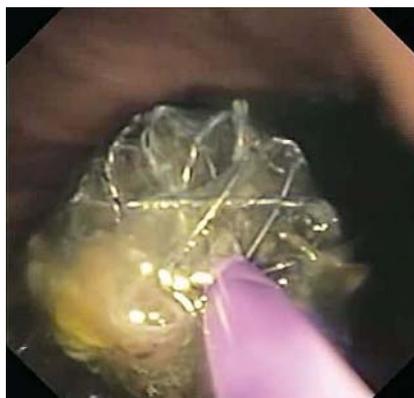
The occurrence of esophageal stent migration after chemoradiation therapy can be as high as 40% [1]. Esophageal stent migration is not an emergency. Indeed, some authors advocate a “wait and see” approach [2]. On the other hand there are some reports of distal migration with intestinal obstruction and impaction requiring surgery [2–4]. In our view, endoscopic removal of a distally migrated esophageal stent is desirable whenever possible. However, the withdrawal may be a challenging procedure [5]. Many different approaches for safe endoscopic removal of a migrated stent have been described, such as the use of an overtube, a snare combined with a rat-toothed forceps, and an endoloop device [6].

### Video 1

Endoscopic removal of the migrated esophageal stent using the “grasper and pusher” method.



**Fig. 1** Rat-toothed grasper inside the biliary stent pusher.



**Fig. 2** Stent border constrained by the grasper and pusher together.

We believe that the “grasper and pusher” method is an elegant and safe technique to deal with a migrated esophageal stent, especially when a significant reduction in tumor size has occurred allowing the passage of a therapeutic endoscope.

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**Competing interests:** None

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