Stent-in-Tube: Self-Expanding Metal Stent in the Management of a Partially Eroded Atkinson's Oesophageal Prosthesis

The management of an oesophageal endoprosthesis that erodes through the oesophageal wall usually involves repositioning it, or removing and replacing it. Occasionally, as in the case of the patient presented here, a firmly embedded prosthesis may prove impossible to extract, necessitating the use of other methods to establish a patent lumen.

A 67-year-old man, who had previously undergone placement of an Atkinson's prosthesis for a mid-oesophageal malignant stricture, presented with progressive dysphagia. Endoscopy revealed erosion of the upper flange of the prosthesis through the oesophageal wall (Figure **1**), without any distal luminal obstruction. The upper end of the prosthesis could neither be grasped with a snare nor grasped from within using a through-the-scope (TTS) balloon, thus preventing it from being extracted and replaced. Negative biopsies from the area excluded tumour overgrowth. To establish luminal patency, a 6-cm Gianturco-Rösch covered Z stent with an external diameter of 25 mm was inserted into the upper end of the Atkinson's prosthesis under fluoroscopic guidance using the standard technique (1) (Figure **2**). This procedure, carried out under conscious sedation, allowed the patient to tolerate fluids and diet from the next day. The patient died suddenly at home a few days later.

The patency of a blocked or eroded prosthesis that cannot be extracted and replaced can be re-established by placing a second prosthesis in the upper end of it. In the present patient, as the upper flange of the Atkinson's prosthesis was situated within a few centimetres of the cricopharyngeal sphincter, placement of a second plastic tube within the lumen was not considered feasible. Similarly, the self-expanding metal stents used for palliation of oesophageal or biliary malignant strictures, if blocked by tumour overgrowth, can be managed by inserting a second, shorter stent into the occluded end of the first stent (stent-in-stent procedure) (1, 2). The present case illustrates the application of a stent-in-tube technique to unblock an Atkinson's prosthesis. Although the high cost of self-expanding metal stents precludes their routine use in all our patients, the death of our patient soon after the procedure did make us pause to reflect whether he might not have been best served by insertion of a self-expanding metal stent at the first intubation.

D. S. Bhandarkar
Dept. of Surgery, Gwynedd Hospital, Bangor, Gwynedd, Wales, United Kingdom

Figure 1: Endoscopic view of the upper flange of the eroded Atkinson's prosthesis.

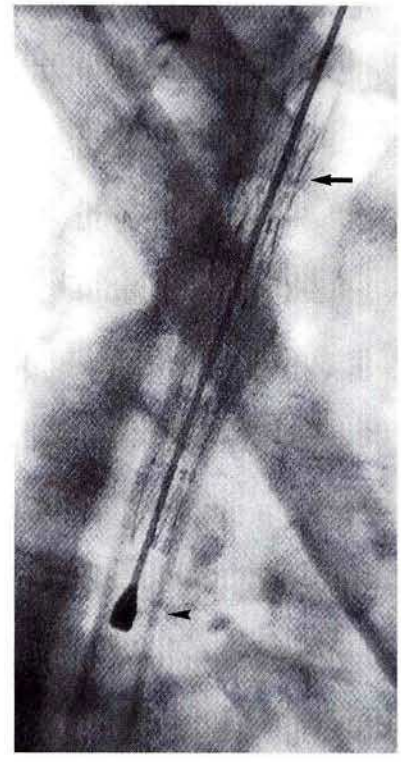

Figure 2: Placement of the self-expanding stent (arrow) within the Atkinson's prosthesis (arrowhead).

Corresponding Author
D. S. Bhandarkar, M.S., F.R.C.S., M.A.C.G.
Dept. of Surgery
Gwynedd Hospital
Bangor
Gwynedd LL572PW
Wales
United Kingdom
Fax: +44-1248-370629

References

1. Wu WC, Katon RM, Saxon RR, Barton RE, Uchida BT, Keller FS, et al. Silicone-covered self-expanding stents for the palliation of malignant esophageal obstruction and esophagorespiratory fistulas: experience in 32 patients and a review of the literature. Gastrointest Endosc 1994; 40: 22–33.
2. Tokunaga Y, Mukaihara S, Kubo S, Yang SM, Yo M, Nakayama T, et al. Metallic expanding biliary stents in malignant obstruction: cases with stent in stent. J Clin Gastroenterol 1993; 17: 153–7.