Infolding of Ultraflex self-expanding metal stent on insertion

Fig. 1 Esophagorespiratory fistula.

Fig. 2 Endoscopic view of infolded stent.

Esophageal cancer is often diagnosed at an advanced stage, without curative options in 50%–60% of cases. Of the major complications, the principal ones are luminal obstruction and esophagorespiratory fistulas [1].

Among palliative measures, self-expanding metal stents (SEMS) have provided good quality of life for patients and are cost-effective [2]. Despite these advantages, the use of SEMS is not free of complications, namely incomplete expansion, migration, perforation, hemorrhage, tracheal compression, or food impaction [1]. Recently some authors have demonstrated accurate and safe stenting using only endoscopic guidance, without fluoroscopic support [3,4].

The Ultraflex stent has been associated with more occurrences of incomplete expansion and migration as well as infolding after deployment, as its construction

Fig. 3 Radiographic view of infolded stent.

favors a smaller radial force; thus, whilst preventing the risk of major trauma, it occasionally requires balloon dilation [5]. We report an unusual event after insertion of a covered 12-cm Ultraflex SEMS under sedation and without fluoroscopic control. The patient was a 52-year-old man with inoperable lower third esophageal cancer, who had previously undergone chemotherapy and radiotherapy and currently had grade 3 dysphagia (● Fig. 1).

After deployment the stent adopted a bizarre “B type” infolded conformation with maintenance of double lumen patency (● Fig. 2 and 3), whilst successfully covering the fistula holes. After 24 hours, repeat endoscopy revealed the same findings. Balloon dilation was done unsuccessfully. Biopsy rat-tooth forceps were used to displace the stent, which allowed it to unfold but uncovered the fistula opening (● Fig. 4). A second attempt, using the same instrument, correctly positioned the prosthesis (● Fig. 5 and 6). The patient remained asymptomatic for the following 6 months and required no further endoscopic examinations.

This report highlights a possible and previously unconsidered adverse event, and is a reminder of the importance of improvisation and of the necessity for improvements in stent design.

Endoscopy_UCTN_Code_CPL_1AH_2AD

Fig. 4 The uncovered opening of the fistula.

Fig. 5 Endoscopic confirmation of correct opening of the stent.

Fig. 6 Esophagographic confirmation of correct opening of the stent.

**B. Arroja, C. Gonçalves, F. Silva,
I. Cotrim, H. Vasconcelos**

Department of Gastroenterology, Hospital
de Santo André EPE, Leiria, Portugal

References

- 1 Wang MQ, Sze DY, Wang ZP *et al*. Delayed complications after esophageal stent placement for treatment of malignant esophageal obstructions and esophagorespiratory fistulas. *J Vasc Interv Radiol* 2001; 12: 465–474
- 2 Knyrim K, Wagner HJ, Bethge N *et al*. A controlled trial of an expansile metal stent for palliation of esophageal obstruction due to inoperable cancer. *N Engl J Med* 1993; 329: 1302–1307
- 3 Singhavi R, Abbasakor F, Manson JMCK. Insertion of self-expanding metal stents for malignant dysphagia: assessment of a simple endoscopic method. *Ann R Coll Surg Engl* 2000; 82: 243–248
- 4 White RE, Mungatana C, Topazian M. Esophageal stent placement without fluoroscopy. *Gastrointest Endosc* 2001; 53: 348–351
- 5 Nevitt AW, Kozarek RA, Kidd R. Expandable esophageal prostheses: recognition, insertion techniques, and positioning. *AJR Am J Roentgenol* 1996; 167: 1009–1013

Bibliography

DOI 10.1055/s-0029-1214434

Endoscopy 2009; 41: E80–E81

© Georg Thieme Verlag KG Stuttgart · New York ·
ISSN 0013-726X

Corresponding author

B. Arroja, MD

Hospital de Santo André EPE, Serviço de
Gastroenterologia

Rua das Olhalvas, Pousos

2410 197 Leiria

Portugal

Fax: +351-244-817080

brunoarroja@gmail.com