

Case report

Endoscopic removal of esophageal expandable metal stents: is it really feasible?

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SUMMARY

A self expandable metal stent was placed in a patient with corrosive esophageal stricture as a temporary measure so that he could be fed until the time he would be operated. One month later the stent was already embedded in the esophageal wall and could not be removed. Despite some reports suggesting that endoscopic removal of esophageal metal stents is feasible, our case indicates that they should rather be considered as irretrievable and should be generally avoided in cases of benign esophageal stenoses.

Key words: benign esophageal stricture; expandable metal stent; endoscopic removal;

INTRODUCTION

Expandable metallic stents are widely used for the treatment of malignant esophageal strictures, with good success rates. Their use in benign strictures is less widespread mainly because they are regarded as permanent and irretrievable, while there is concern over their long-term sequelae.

CASE REPORT

We report the case of a 27 year old man who presented with an esophageal stricture of the lower esophagus

due to previous ingestion of a caustic alkaline agent. The stricture was treated with endoscopic dilations with bougies, while a high dose of proton pump inhibitors and sucralfate were also administered. The procedure had to be repeated every 2 weeks, due to recurrence of symptoms (dysphagia) at a time interval of 10-15 days after the dilatation. After 6 months, the patient was referred to the surgeons for esophageal resection, but surgery was postponed because he developed deep vein thrombosis of the right leg. He was then started on anticoagulant therapy, which had to be continued for 6 months. Since we had read reports suggesting that endoscopic removal of esophageal metal stents is feasible even after a period of 3-6 months,¹⁻³ we decided to place an Ultraflex stent (Microvasive Endoscopy, Boston Scientific Corp., Natick, Mass.) at the lower esophagus, so that the patient could be fed during the time he would be on anticoagu-

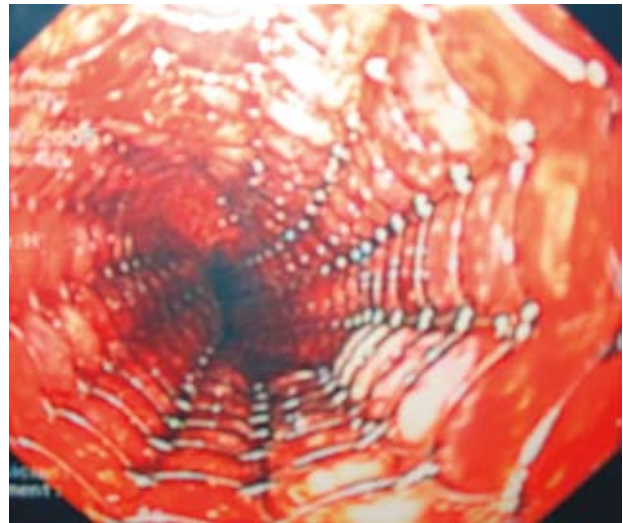


Fig. 1. Ultraflex stent placed successfully at the lower esophagus.

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lant therapy. The stent (US/18-12/16/95, 9cm cover) was placed successfully (Figure 1) and the patient could receive a normal diet soon afterwards. Four weeks later he was reevaluated with a follow-up endoscopy and at that point it was evident that the stent had become embedded in the esophageal wall (Figure 2). Several attempts to pull away either the proximal or the distal edge of the stent using rat-toothed forceps were unsuccessful, since the stent was already too stiffly fixed to the esophagus to be removed.

Four months later the patient developed dysphagia to both solids and liquids and a new endoscopy revealed the presence of hyperplastic - granulation tissue above the proximal uncovered end of the stent (Figure 3), presumably due to irritation of the esophageal mucosa from the stent, causing stenosis of the upper esophagus. At this point it was decided to manage the patient with total parenteral nutrition until the completion of the anticoagulant therapy, at which time he will be operated.

DISCUSSION

Caustic ingestion, is one of the most frequent causes of benign esophageal strictures. Endoscopic peroral dilation with bougies or balloons is considered the initial treatment of choice. However, due to extensive fibrosis, severe esophageal strictures may be refractory to repeated dilation, with shorter periods of relief of dysphagia.

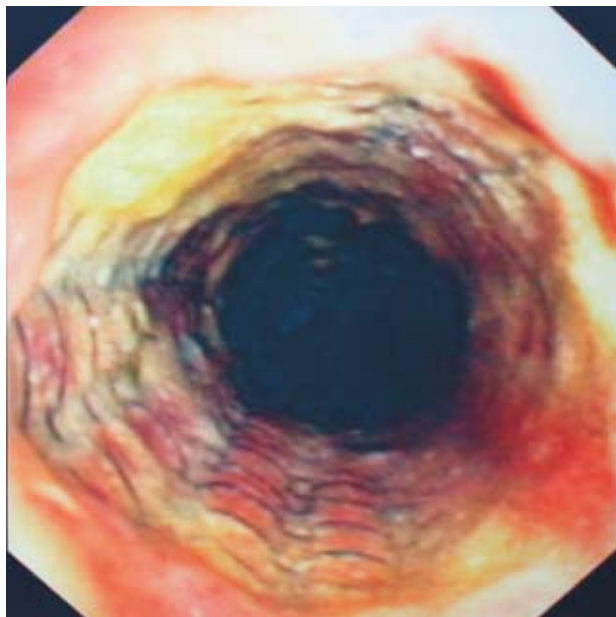


Fig. 2. Four weeks later, the stent had become embedded in the esophageal wall.



Fig. 3. Hyperplastic - granulation tissue above the proximal uncovered end of the stent, four months afterwards.

Surgery and stent insertion have been proposed as alternative therapies, especially when aggressive treatment fails to lengthen the interval between relapses of dysphagia⁴. Although generally avoided, self expandable metal stent placement for benign disorders has been reported. The main skepticism regarding their use in patients with benign esophageal stenosis is due to concerns over long term complications as well as the ability of endoscopic removal. Despite reports of successful endoscopic removal after a time period of 3-6 months,¹⁻³ in our case the Ultraflex stent could not be pulled out one month after placement, supporting the notion that such stents should be regarded as permanent and irretrievable.⁵⁻⁶ Therefore they should be used with great caution in patients with benign esophageal strictures, only in exceptional situations and after considering the indication for placement and the expectation of longevity.

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