Esophacoil for palliation of recurrent malignant esophago-jejunal anastomotic stricture.
Case reports

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Introduction

Dysphagia after esophageal or gastric resection for cancer is observed in 20% of patients. In half it is correlated to a recurrent malignancy at esophago-jejunal anastomosis (1, 2). Due to limited life expectancy, palliative therapy is the preferred approach for these patients, it eliminates symptoms as well as dysphagia and nutrition and improves the patient's quality of life. Among different types of palliation, surgery presents a high rate of morbidity and mortality (3, 4), radiochemotherapy relieves dysphagia slowly and clinical results are disappointing (5). Endoscopic approach, with the insertion of a self-expanding metal stent (SEMS) across the esophago-jejunal stricture avoids further surgery and offers several advantages including immediate improvement of dysphagia and a good quality of residual life (6-12). We report successful palliation of 3 cases of esophago-jejunal strictures due to neoplastic anastomosis recurrences by the implantation of SEMS-Esophacoil.

Case 1

A 65 year old male underwent esophago-gastric resection with intrathoracic esophago-jejunal anastomosis (EEA/ILS stapler 21) for a distal third esophageal squamous cell carcinoma. Pathologic staging was T2N1MO. The resection margin of the esophagus was free of the residual tumor. The patient made an uneventful reco-
very and was discharged on 10 days post-operatively. Post-operative chemotherapy was performed within 3 weeks after surgery. Twenty one months later the patient represented with dysphagia for liquid food (grade I). A barium swallow detected an irregular anastomotic stricture at 33 cm. from the incisors which extended distally for 4 cm. (Fig. 1 - left). Upper GI endoscopy with biopsies confirmed the neoplastic recurrence at the anastomotic site. CT scan showed mediastinal metastasis. A SEMS-Esophacoil 18 mm in diameter and 10 cm long was inserted for palliation. The procedure for prothesis insertion was described in a previous paper (13). Patient was discharged after 24 hours with the prothesis in site and completely expanded (Fig. 1 - right). Ten days following the endoscopic procedure, the patient referred dysphagia for solid food (grade I) until the patient's death at 5 months.

Case 2

A 71 year old male underwent esophagogastrectomy with esophago-jejunal anastomosis (EEA/ILS stapler 25) for adenocarcinoma of the cardia. Pathologic staging was pT3N1M0. The patient made an uneventful recovery and was discharged on 14 post-operative day. Adjuvant chemotherapy was not planned due to his age and general conditions. His follow-up evolution in the 3 months after operation was normal. The patient represented with complete dysphagia for liquid food (grade III) 14 months later. Barium swallow detected two strictures, one at 29 cm from the incisors and the second one on the anastomosis (Fig. 2/left). Upper GI endoscopy showed a narrowing covered with intact mucosa at 29 cm, while signs of neoplastic recurrence confirmed by biopsy were present at the anastomotic site. CT scan showed thickening of the esophagus and enlarged mediastinic nodes. An Esophacoil, 18 mm in diameter and 15 cm long (Fig. 2/right) was inserted for palliation. The patient was discharged after 24 hours with the patient prothesis, barium swallow revealed free flow of contrast into jejunal segment. After 30 days from the endoscopic procedure the patient referred grade I dysphagia and x-ray revealed the stent remained patent. He died 3 months later for distant metastasis.

Case 3

A 65 years old male underwent esophagogastrectomy with esophago-jejunal anastomosis (EEA/ILS stapler 25) for a carcinoma of the cardia. Pathologic staging was T2N1MO. Post-operative follow-up was uneventful and the patient was discharged on 14th post-operative day. Adjuvant chemotherapy was performed. His follow-up evolution on the first 3 months after operation was normal. However 15 months later the patient represented with dysphagia for semisolid food (grade II). Barium swallow showed esophageal dilation and no passage of barium through esophagojejunal anastomosis. Upper GI endoscopy showed the presence of a stenotic anastomosis at 32 cm from the incisors not negotiable with a pediatric
endoscope (Olympus N 30). CT scan showed neoplastic recurrence on the anastomotic site and liver metastasis. An Esophacoil, 18 mm in diameter and 10 cm long, was inserted. Due to incomplete expansion of the stent a balloon dilatation (18 mm) was performed 24 hours later. Patient was discharged with patent prosthesis and without dysphagia. Retrosternal pain treated with analgesics was experienced for 4 days. After 30 days a radiological control showed the stent yet patent and the patient referred grade I dysphagia (grade 0). Survival after stent insertion was of 4 months.

Discussion

The majority of patients with carcinoma of the esophagus and gastric cardia are not treatable for cure because of an advanced tumor stage at the time of diagnosis. The restoration of swallowing is the prime objective in such patients. The placement of a self expandible metal stent seems to be a good choice because it allows to solve the stenosis in one single session and definitely with a low complication rate and achieves an effective symptomatic palliation (3, 4).

SEMS implantation is alike effective in the palliation of recurrent neoplasia at esophago-jejunal anastomosis in patients treated for distal third esophageal or esophago-gastric carcinoma (6/12). The endoscopic approach eliminates dysphagia and denutrition and improves the remainder of the patient’s life.

Different kinds of SEMS have been used, Ultraflex, Esophacoil, Gianturco-Roch-Zstent, Wallstent. The first three types are the more commonly used (Tab. I). Out of 37 collected cases Ultraflex (6, 9, 10, 12) was used in 17 cases (46%), Esophacoil (8, 11, 12) including our patients in 11 (29.7%) Gianturco stent (6) in 5 cases (13.5%) and Wallstent (7) in 4 (10.8%).

We preferred to lise Esophacoil after many considerations.

The high radial force that allows complete expansion in almost all cases followed by a rapid resolution of dysphagia, the adaptability of the spirals to the stricture with consequently greater adhesion to the neoplasia and lower percentage of dislocations (13-15), lower percentage of endoluminal neoplastic ingrowths due to the serrated matching of the spirals. As regard as the migration only in one paper (11) Esophacoil was found to be unsuitable because the migration appeared in two out of three treated patients.

In all our 3 patients we obtained a complete expansion of the stent, as reported for the palliative treatment of the oesophageal carcinoma (13-17). Similar results are reported in 80% of cases treated with Z-stent (18-20) in 89.5% with Wallstent (21-23) and in about 50% using Ultraflex stent (12, 24, 25). For the last one the results should be improved till 70% after repeated pneumatic dilatations (24, 25). The reported percentages of stent migration are 5.9-7.5% using Esophacoil, 10% with Zstent, 4.5-12% with Wallstent and 4-10% using Ultraflex (13).

In conclusion, although the published data are numerically small, the palliative endoscopic therapy of anastomotic neoplastic recurrences, is a good approach to relieve dysphagia and to allow a better quality of residual life when curative treatment is not an option. The advantages are minimally invasive approach, the small number of complication and the fast recovery from acute symptoms. In this view, Esophacoil should offer some advantages the strongest expansion force yet achieved, spontaneous opening in almost all cases even in extremely resistant strictures, low percentage of migration and even if Esophacoil stent is uncovered seldom is detected endoluminal neoplastic ingrowth.

Tab. 1 – Palliation of post-operative malignant esophago-jejunal anastomatic strictures

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<tr>
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References


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