Benign Esophagorespiratory Fistula Complicated by Deep Impaction of Stent Mesh in the Esophageal Wall

The placement of self-expandable metallic stents is widely accepted as a treatment for malignant esophagorespiratory fistulas [1–2]. In contrast, there is ongoing discussion about the use of metallic stents for temporary treatment of benign and potentially reversible esophageal disorders, because after only a few weeks stent retrieval may already be difficult [2–4].

We report on a rare case in which the endoscopic removal of three metallic stents, which had been in situ for more than 3 years for benign esophagorespiratory fistula, was actually impossible due to deep impaction of the stent mesh into the esophageal wall, and subtotal esophageal resection was thus required.

In January 2001, a 73-year-old-man in a reduced physical condition (56 kg, 168 cm, BMI 19) presented with an express desire for treatment of a large esophagorespiratory fistula that had developed more than 3 years earlier; secondary to mediastinal hematoma and local inflammation after therapy with streptokinase for myocardial infarction (Figure 1). A total of three metallic stents (one Flammingo-Wallstent, one Ultraflex stent, one Gianturco-Z stent) had been placed in the esophagus to cover the fistula, with only temporary success, however, because of stent migration and dislocation. Since nutrition via a percutaneous endoscopic gastrostomy (PEG) had led to repeated aspiration, the patient had been fed exclusively by parenteral means for almost 3 years.

At admission in January 2001, endoscopy and bronchoscopy showed stents deeply embedded in the esophagus with several wires perforating into the trachea. Thus, endoscopic stent retrieval, even in a piecemeal fashion, was impossible.

Therefore, as a first operation transthoracic esophagectomy with cervical esophagostomy had to be performed to allow closure of the defect in the trachea (Figure 2 a, b). During this operation, several wires had to be removed from the trachea, lung and mediastinum. The postoperative course was complicated by recurrent pneumonias requiring mechanical ventilation for almost 3 months. At 1 year after esophagectomy, reconstruction was achieved with a cervical esophago-gastric anastomosis via the retrosternal route. The patient is now in good physical condition, at 2 years after this operation, and on completely enteral nutrition.

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