Double Layered SEMS for Malignant Esophageal Obstruction Across Gastroesophageal Junction

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Background: Self-expanding metal stents are effective for relieving of dysphagia and malnutrition in patients with malignant esophageal obstruction including gastroesophageal junction (GEJ) obstruction. However, data on the clinical outcomes of SEMS for treatment of malignant esophageal obstruction, including comparison of complication rate according to the sites of obstruction are still lacking.

Objective: The aim of this study is to investigate the clinical outcomes of SEMS for treatment of malignant esophageal obstruction according to the sites of obstruction.

Methods: A total of 48 patients who underwent the SEMS insertion for malignant esophageal obstruction were enrolled. Double layered (outer uncovered and inner covered stent) esophageal stents were placed. We analysed clinical outcomes of SEMS placement for GEJ obstruction including a comparison with non-GEJ obstruction.

Results: The SEMS insertion and the clinical improvement were achieved in all patients. The mean dysphagia score changed from 3.20±0.68 to 1.77±0.77 (p<0.001) after stent placements. Stent malfunction occurred in 16 patients (33.3%) due to tumor overgrowth (13 patients), stent migration (1 patient) and food impaction (2 patients). In the comparison of the rates of stent malfunction between GEJ and non-GEJ, there were no significant differences statistically. Among 48 patients, 20 patients (41.6%) had the complications such as aspiration pneumonia (5 patients, 10.4%), reflux esophagitis (13 patients, 27.0%) and tracheoesophageal fistula (2 patients, 4.2%). In the comparison of the rates of complications between GEJ and non-GEJ, only reflux esophagitis occurred more frequently in GEJ with statistically significant difference (p=0.036).

Conclusion: The SEMS insertion is the feasible and effective treatment for malignant esophageal obstruction regardless of the sites of obstruction. But the rate of reflux esophagitis was more frequent in GEJ, compared to that in non-GEJ.