12 patients with malignant inoperable esophageal obstruction (carcinoma of the esophagus n = 7, carcinoma of the esophagogastric junction n = 3, mediastinal lymph node metastasis n = 2) and high-grade dysphagia were treated with self-expanding metal stents (Ultraflex, Microvasive) made of a nickel titanium alloy (Elastalloy). Other forms of palliation had failed in 9/12 patients. The degree of palliation was expressed as a dysphagia score (0-4) before and after stent insertion. The stents were inserted under endoscopic and fluoroscopic control. They were placed successfully and without complications in all patients. A good functional result was achieved in 11 patients (91.7%). Thus, the dysphagia score decreased significantly from 3.2 +/- 0.4 before to 0.9 +/- 1.0 immediately after stent insertion (p < 0.001). The remarkable relief of dysphagia was sustained during a mean follow up of 101 days (10-278) with a dysphagia score of 1.1 +/- 1.0 at the end of the study (p < 0.001 compared to the score before the procedure). In one patient with mediastinal lymph node metastasis the stent expanded insufficiently. 7 days after insertion it was removed endoscopically and replaced successfully by another stent with a stronger expansive force (Instent). 3 patients experienced recurrent dysphagia (food impaction n = 1 tumor ingrowth through the meshes of the stent n = 2). They were successfully treated by an endoscopical intervention (endoscopical dilatation n = 1, laser therapy n = 1, insertion of a Wallstent n = 1). At the end of the study, 6 patients were alive, 6 patients were dead with a mean survival of 56 days (10-117).