Self-expanding metal stents in malignant esophageal obstruction: a comparison between two stent types

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OBJECTIVES: Self-expanding metal stents are a promising alternative in the palliation of malignant esophageal obstruction, but the relative value of different stent types is not well established. METHODS: During a 3-year enrollment period in four different centers, 82 consecutive patients with malignant dysphagia without tumor recurrence after surgery or esophagorespiratory fistulas received either an uncovered Wallstent (44 patients) or a knitted nitinol stent (38 patients). RESULTS: Age (median: 79 yr), sex (F:M = 33:67), dysphagia score (median: 3), Karnofsky score (median: 53), body mass index (median: 19), type of pretreatment, tumor stage, stricture length (median: 5.4 cm), and stricture location were comparable in both stent groups. After stent placement, median dysphagia score improved markedly in both groups by two points. Procedure-related mortality (16 vs 0%; p < 0.01), early complication rate (32 vs 8%; p < 0.01), and severe persistent pain after stent placement (23 vs 0%; p < 0.002) were higher in the Wallstent compared with the knitted nitinol stent group. In contrast, stent dysfunction (7 vs 32%; p < 0.005), reintervention rate (9 vs 34%; p < 0.005), and costs were lower in the Wallstent compared with the nitinol stent group. CONCLUSIONS: In malignant esophageal obstruction, both stents markedly improved dysphagia. Uncovered Wallstents seem to cause more early severe complications than knitted nitinol stents. In contrast, stent dysfunction, reintervention rate, and costs appear to be higher in the nitinol stent group.