INTRODUCTION: The incidence of adenocarcinoma of the esophagogastric junction (AEG) is increasing worldwide, and classification systems and resection procedures are being controversially discussed. METHODS AND PATIENTS: We report on 225 AEG patients undergoing primary resection in our unit (1986-2000) with a special focus on perioperative morbidity, mortality, and long-term prognosis under consideration of the AEG type (Siewert classification) and operative procedure performed (subtotal esophagectomy with proximal gastric resection in AEG I, total gastrectomy with distal esophageal resection in AEG II and AEG III). RESULTS: Types I, II, and III carcinomas were found in 32%, 42%, and 26% of the patients, respectively, with R(0) resections in 65%, 69%, and 51% (P=0.039). The overall 5-year survival rates were 29%, 31%, and 14% (P=0.068), respectively; in R(0)-resected patients, they were 40%, 41%, and 27% (P=0.771). In univariate analysis, the TNM classification (P<0.001), R classification (P<0.001), and tumor stage (P<0.001) were relevant prognostic factors. In multivariate analysis, only the R classification (P=0.003), LN ratio (P=0.012), and N stage (P=0.027) were independent prognostic factors. In 35 of 177 patients resected with curative intent, R(0) resections could not be achieved, mainly because of residual tumor in the circumferential plane.
(22/35=63%). Only in 37% of cases (13/35) was the R(1) situation due to exclusive positive oral or aboral resection margins. Therefore, in only 7% of all patients resected with curative intent (13/177) did the question arise of whether the R(1) resection could have been avoided by a different surgical approach. Surgical, pulmonary, and cardiac complications were found in 33%, 26%, and 10%, respectively. The mortality within 30 days was 4%. CONCLUSIONS: Failure of R(0) resection in patients treated with curative intent is mostly caused by residual tumor in the circumferential plane. Therefore, different surgical approaches with varying oral and aboral resection margins are of minor importance for reducing the frequency of R(1) resections. Downstaging of tumors by neoadjuvant treatment may increase the R(0) resection rate.