What to do after R1-resection of adenocarcinomas of the esophagogastric junction?

The management of R1-resected adenocarcinoma of the esophagogastric junction (AEG) is unclear. We aimed to identify risk factors and prevalence of R1 resections, their recurrence and prognosis, and efficacy of postoperative therapy. A single center cohort of 766 consecutive patients undergoing curative intent resection for AEG was analyzed retrospectively. R1-resection rate was 13%. Poorer tumor differentiation, higher T-, N-, and UICC/AJCC-stages were associated with R1-resections. Compared to R0-resected patients, R1-resected patients had a higher incidence of tumor recurrence (77% vs. 32%; P < 0.001) and worse overall survival (5-year overall survival 43% vs. 10%; P < 0.001). The pattern of recurrence did not differ between R0- and R1-resections with distant metastases in 90% and 87% of patients with tumor recurrence. We found a trend towards better overall survival for R1-resected patients receiving postoperative therapy compared to R1-resected patients without postoperative therapy (median 17.4 vs. 14.6 months, P = 0.056). The association of R1-resections with poor tumor characteristics allows for identification of patients at risk for R1-resection. As in R0-resections, tumor recurrence in R1-resections is mainly systemic, not local. The potential benefit of additive local postoperative therapies in R1-resected patients must be balanced against overall prognosis.