Prevalence and topography of lymph node metastases in early esophageal and gastric cancer.

Abstract:
To determine the prevalence and localization of lymph node metastases in patients with pT1 carcinoma of the esophagus, esophagogastric junction, and stomach. Retrospective analysis and topographic description. We included 793 consecutive patients with pT1 carcinomas who underwent primary surgery for squamous cell carcinoma (SCC) of the esophagus, adenocarcinomas of the esophagogastric junction (AEG), or gastric cancer (GC). Clinical records and pathology reports were reviewed, and the prevalence and topography of lymph node metastases were identified. The prevalence of lymph node metastases in SCC, AEG, and GC was 7%, 0%, and 5% for pT1a tumors and 24%, 18%, and 14% for pT1b tumors, respectively. Positive lymph node status was associated with worse overall survival (P<0.001). Not only infiltration of the submucosa (P=0.002) but also lymphatic vessel invasion (P<0.001), multifocal tumor growth (P=0.001), lower patient age (P=0.001), and poor tumor differentiation (P=0.05) were associated with nodal disease. These 5 parameters allowed the compilation of a nomogram to estimate the individual risk of lymph node metastases. In SCC, lymph node metastases were found from the neck to the celiac axis. In AEG, nodal disease was limited to the lower mediastinum and the D1 compartment. In GC, lymphatic spread exceeded the D1 compartment in 7% of node positive patients.
estimation for lymph node metastases should not be based on depth of tumor infiltration alone but additional clinicopathological parameters should also be considered. The extent of lymphadenectomy in surgical procedures should respect the presented topography of lymph node metastases.