

C-54

Lobectomy with Mediastinal Nodal Dissection vs. Partial Lobectomy in Patients with Bronchial Carcinoid Tumors

Gustavo Westin¹; Samer Alsidawi¹; Konstantinos Leventakos¹; Brandon Huffman¹; Thorvardur Halfdanarson¹; Julian Molina¹

¹Mayo Clinic

BACKGROUND: Bronchial carcinoid tumors usually have an indolent clinical behavior, and surgical resection is the main treatment modality for patients with early stage disease. However it is unclear if lobectomy with mediastinal lymph node dissection (L) is superior compared to partial lobectomy (PL).

METHODS: Utilizing the National Cancer Database from 2004-2012, 1551 patients diagnosed with T1N0 or T2N0 typical carcinoid tumors (CT), and 167 atypical carcinoid (ACT), who underwent L or PL (segmental or wedge resection) as initial treatment strategy, and did not receive chemotherapy or radiation were identified. All patients had pathologically confirmed diagnosis, negative surgical margins, and complete follow up data. Overall survival (OS) was analyzed utilizing Kaplan-Meier curves, and log-rank tests were used for statistical comparisons. Cox proportional hazards were performed to control for age, sex, race, grade, year of diagnosis, Charlson/Deyo Score, insurance, income, and facility type. T-test was used to compare post-surgical hospital stay.

RESULTS: Approximately 75% of patients with CT and 78% of ATC underwent L. The 90 day mortality following surgery was < 1 % in both surgical groups. Patients who underwent L had longer post-operative hospitalization stay (mean 5.3 vs. 4.3 days; $p < 0.001$). The 5 year survival for patients with CT was 95% in the

L versus 93% in the PL group ($p=0.62$), and for ACT 89% in the L versus 81% PL ($p=0.28$). In a multivariate analysis increasing age was the only prognostic factor, and was associated with inferior survival. The HR for death comparing PL to L was 1.09 (95% CI: 0.65-1.78; $p=0.71$) for CT and 1.25 (95% CI: 0.45-3.23; $p=0.65$) for ACT.

CONCLUSION: Patients with localized node-negative CT and ACT have excellent 5 year survival. Performing a lobectomy with mediastinal node dissection may not provide additional benefit compared to partial lobectomy, but this may increase their length of hospital stay.