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10th International Workshop on Surgical Exploration of the Mediastinum and Systematic Nodal Dissection



RADICALITY OF LYMPHADENECTOMY IN LUNG CANCER RESECTION: IMPACT ON SURVIVAL. RESULTS FROM THE SPANISH VIDEO-ASSISTED THORACIC SURGERY GROUP (GEVATS)

Carme Obiols

Department of Thoracic Surgery, Hospital Univeristari Mútua Terrassa, Barcelona, Spain

Introduction: The type and the extent of lymph node (LN) dissection in resected non-small cell lung cancer (NSCLC) have been widely evaluated, although the impact on survival remains unclear (1). While some studies have not observed any difference in survival according to lymphadenectomy practice (2, 3), others have observed survival benefit according to type of lymphadenectomy, number of resected LN and number of LN stations explored (4-9). The objective of this study is to analyse survival differences according to the intraoperative nodal assessment performed (systematic nodal dissection [SND] or no SND) in patients with resected lung cancer from the Spanish Video-Assisted Thoracic Surgery Group (GEVATS) (10).

Methods: Prospective multicentre cohort study of anatomic pulmonary resections (n=3533) performed from December, 2016 to March, 2018. Follow-up was completed in September 2022. For the purpose of this study, SND implied the removal or sampling of a minimum of 6 lymph nodes, at least 3 of them from the mediastinum and always including the subcarinal station. Main surgical, clinical and oncological variables were compared according to the use of SND. Corresponding tests for homogeneity were performed. The Kaplan-Meier method and multivariate Cox regression analysis were used to analyse the overall (OS) and cancer specific survival (CSS) depending on whether SND was performed or not, and then subanalysed by pathologic (p) N category.

Results: After exclusions, 1548 patients were eligible for this study (figure 1). Kaplan-Meier curves showed no differences in OS (p=0.538) and CSS (p=0.108) in patients undergoing SND or no SND (figure 2), but there were differences when analysing by pN category (figure 3) and also when subanalysing by tumour size (p<0.0001) (figure 4). Cox regression analysis revealed no significant difference in lung CSS between SND or no SND in the general cohort (HR 0.98; 95%CI: 0.75-1.28; p=0.883) (table 1) and in the pN1 cohort (HR 0.68; 95%CI: 0.42-1.11; p=0.123) (table 2). However, in patients with pN1 and tumour size >3cm, the HR for SND was predictor of better CSS survival (HR 0.49; 95%CI: 0.27-0.88; p=0.017) (table 3).

Conclusions: SND was not associated with a better overall and cancer specific survival in the GEVATS cohort. However, in the subgroup of patients with pN1 and > 3 cm tumours, the HR for SND group show a significant improvement in survival. Therefore, SND should be performed routinely specially in this subgroup of patients.

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