





## IMPACT OF TUMOR GRADE ON SURVIVAL: A COMPARATIVE STUDY OF SEGMENTECTOMY AND LOBECTOMY IN NON-SMALL CELL LUNG CANCER

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OBJECTIVE To evaluate overall survival (OS) and disease-free survival (DFS) according to the histological tumor grade in patients undergoing anatomical segmentectomies (AS) and lobectomies for non-small cell lung cancer (NSCLC). METHODS Retrospective study of patients with NSCLC ≤ 3 cm and cN0 who underwent either an AS or a lobectomy. Analyzed variables included demographic, pathological, and surgical characteristics, as well as OS and DFS. [Local recurrence-free survival (LRFS), distant recurrence-free survival (DRFS)] RESULTS Between August/2015 and December/2022, a total of 233 patients, men:144 (62%). Mean age 69 years. We performed 85 AS (36,5%) and 148 lobectomies (63,5%). The 30-day postoperative mortality rate was 0%. The mean preoperative tumor size was 18(±8 mm). Histology: The most common type was adenocarcinoma:143 patients (61%). Spread through air spaces (STAS): 29(12%). pN:N0:214(92%), N1:12(6%), N2:5(2%). Pathological stages: 83% of the patients were Stage I. OS was similar between lobectomy and segmentectomy groups and showed overlap over the time. (p=0.864) DRFS Was significantly better in the lobectomy group compared to segmentectomy group (p=0.014). OS, according to tumor differentiation grade, was worse in poorly differentiated tumors in both groups (p=0.040). LRFS and DRFS were significantly worse in patients with poorly differentiated tumors undergoing segmentectomies (p=0.012 and p=0.035, respectively). CONCLUSIONS Poor tumor differentiation negatively impacts the prognosis in both groups. However, in the AS group, poor tumor differentiation was associated with a significantly higher risk of local and distant recurrence. Therefore, the consideration of performing a lobectomy on an individual basis for each patient should be considered.