Evaluation of the Surgical Extent for Clinical T1N0 Radiologically Subsolid Lung Invasive Adenocarcinoma: Where Is the "Safety Zone" of Wedge Resection?

Objective: To evaluate the survival outcomes of patients with radiological cT1N0 subsolid nodule and pathologically diagnosed as lung invasive adenocarcinoma (IAC), who received wedge resection, and to identify potential risk factors for postoperative progression.

Methods: 258 patients with pathological confirmed IAC and cT1N0 solitary subsolid nodule who received wedge resection from January 2008 to December 2020 were included. The clinicopathologic characteristics, 5-year lung cancer-specific recurrence free survival (LCS-RFS) and lung cancer-specific overall survival (LCS-OS) were analyzed. The Cox hazards model was used to evaluate the significant risk factors for recurrence. Propensity score matching (PSM) was used to reduce potential biases for comparison between patients receiving wedge resection and those receiving segmentectomy.

Results: Mean follow-up time was 36.87±16.21 months. The 5-year LCS-RFS following wedge resection was 96.89% for patients with nodule?2cm & 0.250.5 (p=0.033). The 5-year LCS-OS showed no significant difference. For the patients with nodule?2cm &0.25

Conclusions: Wedge resection might be appropriate for patients with pathological confirmed IAC and radiologically solitary subsolid nodule?2cm & 0.25

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