

주최·주관 대한심장혈관흉부외과학회

2024 대한심장혈관흉부외과학회 제56차 추계학술대회

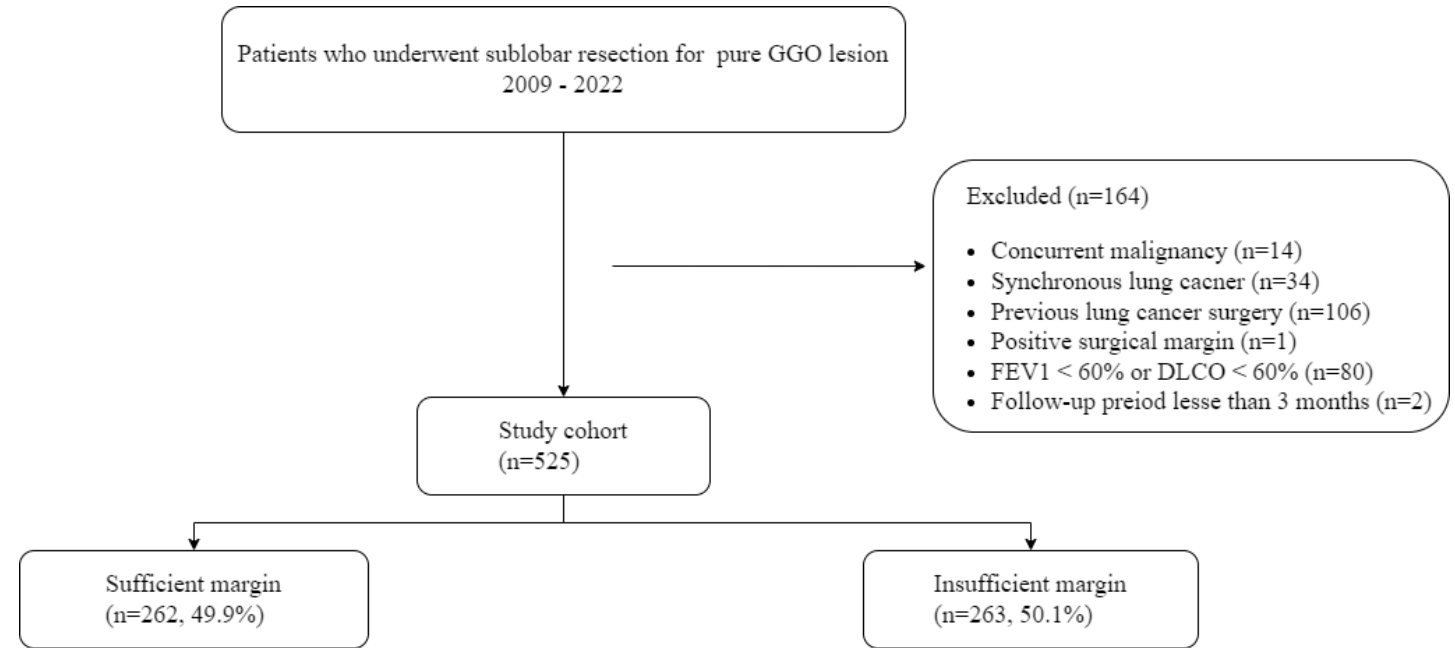
2024. 10. 31 (Thu) - 11. 01 (Fri) 여수 엑스포 컨벤션센터



Prognosis of Insufficient Resection Margin Distance of Sublobar Resection for Lung Adenocarcinoma with Pure Ground-Glass Opacity

- With the increasing use of chest CT for lung cancer screening, the detection of early-stage lung cancer cases, including pure ground-glass opacity (GGO) lesions, and the overall number of cases have increased.
- The JCOG 0802 multicenter randomized controlled trial established sublobar resection as the standard treatment for early-stage lung adenocarcinoma.
- Despite the non-invasiveness and excellent prognosis of pure GGO, the NCCN guidelines uniformly recommend sufficient margins for sublobar resection.
- In this study, we investigated the prognostic impact of the current NCCN guidelines' definition of sufficient margins on patients who underwent sublobar resection for pure GGO."

- Patients who underwent sublobar resection for lung adenocarcinoma with pure GGO lesions between 2009 and 2022 were reviewed.
- Definition : 1) Sufficient margin of NCCN guideline : $\geq 2\text{cm}$ or size of GGO 2) Permissive sufficient margin : $\geq 1\text{cm}$ or 50% size of GGO
- Cox proportional hazard model : Freedom Free recurrence
- Maximally selected log-rank statistic to investigate cutoff value of sufficient margin

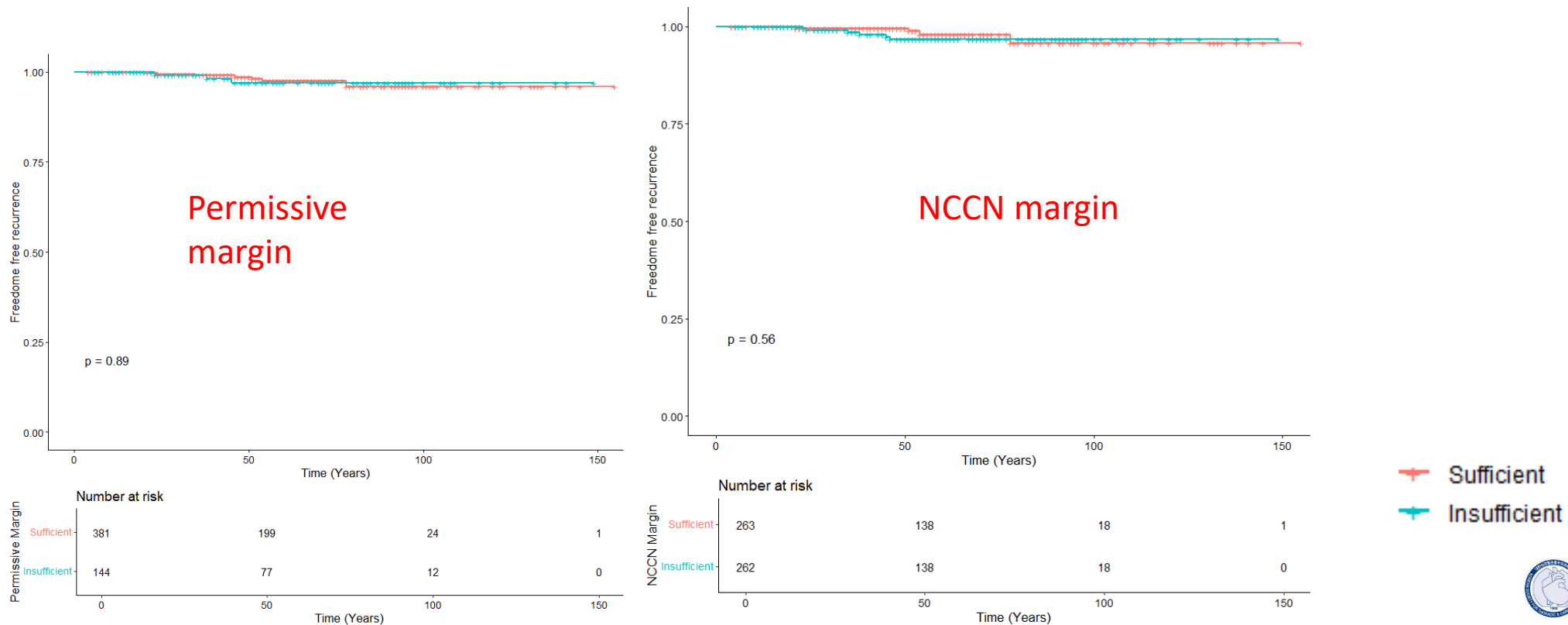


- A total of 525 patients were included, and the overall recurrence rate was 1.9%(10/525) in patients who underwent sublobar resection for pure GGO lesions.
- The N+ rate of GGO lesions was 0.8% (4/525)
- T2 (due to visceral pleural invasion) and T3 (satellite nodule in the same lobe) were identified in 2.3% of patients (12/525).

	Overall (N=525)	Sufficient margin (N=263)	Insufficient margin (N=262)	p-value
Recurrence rate	10 (1.9)	4 (1.5)	6 (2.3)	0.745
Local recurrence	9 (1.7)	4 (1.5)	5 (1.9)	0.995
Distant recurrence	1 (0.2)	0 (0)	1 (0.4)	0.998

	Sufficient margin (N=263)	Insufficient margin (N=262)	p-value
Surgical Extent			0.016
Wedge resection	123 (46.8)	151 (57.6)	
Segmentectomy	140 (53.2)	111 (42.4)	
Margin	21.3 ± 10.1	6.6 ± 4.4	0.000
Visceral pleural invasion	2 (0.8)	4 (1.5)	0.678
Lymphovascular invasion	2 (0.8)	4 (1.5)	0.754
Pathologic T			0.003
Tis orTmi	70 (26.6)	59 (22.5)	
T1a	90 (34.2)	57 (21.8)	
T1b	88 (33.5)	122 (46.6)	
T1c	11 (4.2)	16 (6.1)	
T2or3	4 (1.5)	8 (3.1)	
Pathologic N			0.077
Nx	17 (6.5)	30 (11.5)	
N0	245 (93.2)	229 (87.4)	
N+	1 (0.4)	3 (1.1)	

- There was no difference in FFR between the sufficient margin group and the insufficient margin group, whether based on the NCCN surgical margin or the permissive surgical margin definition.
- In the multivariable Cox analysis, only pathologic N+ (HR: 28.26, 95% CI: 2.06-387.11, p-value: 0.012) and T2-3 (HR: 5.58, 95% CI: 1.79-17.38, p-value: 0.003) were statistically significant factors for FFR



- In the maximally selected log-rank statistic, no statistically significant cutoff values for margin or margin-to-GGO ratio were identified.
- In conclusion, patients who underwent sublobar resection for pure GGO lesions exhibited very favorable oncologic outcomes, regardless of margin sufficiency.
- In sublobar resection for pure GGO lesions, if complete resection is achieved, strictly adhering to NCCN margin guidelines may not impact prognosis.
- Further research is needed to determine a resection margin definition tailored for pure GGO lesions.

