



P1.154: Long-Term Outcomes of Segmentectomy for Small-Sized Non-Small Cell Lung Cancer in a Real-World Setting

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INTRODUCTION

- Recent large randomized trials^{1,2} suggest that the postoperative outcomes are similar for lobectomy and sublobar resection in patients with small-sized non-small cell lung cancer (NSCLC).
- It is unclear whether these results can be applied to real-world settings.

METHODS

Design:

- A retrospective review of consecutive patients with clinical stage 0–IA NSCLC who underwent segmentectomy.
- Overall survival (OS) and recurrence-free probability (RFP) were calculated using the Kaplan-Meier method.
- Demographic and clinical factors were analyzed using univariate analysis with the log-rank test and multivariate Cox regression analysis.
- Recurrence patterns, treatment for recurrence, and outcomes after recurrence were investigated in patients with postoperative recurrence after surgery.

DISCUSSION AND CONCLUSION

Key Findings

- In a real-world setting, background factors associated with the patient were strongly linked to OS, while a NSCLC-related factor was identified as a risk factor for recurrence.
- Relatively long-term survival was achieved even in patients with recurrence.

Actionable Take Away Message

- When considering segmentectomy for small-sized NSCLC, one should take the patient's background factors into account, such as the presence of other malignancies.

REFERENCES & ACKNOWLEDGEMENTS

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Footnote:

Conflicts of Interest: No potential conflicts of interest exist with any companies/organizations whose products or services may be discussed in this presentation.

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RESULTS

Table 1. Baseline Characteristics and Univariate Analysis of RFP and OS.

Variables	No.	RFP		OS	
		HR (95% CI)	P	HR (95% CI)	P
All cases	313 (100)				
Age			0.735		<0.001
≤70 years	169 (54)	Reference		Reference	
>70 years	144 (46)	1.1 (0.6–2.3)		3.0 (1.8–5.5)	
Sex			0.106		0.003
Male	166 (53)	1.8 (0.9–3.6)		2.5 (1.3–4.1)	
Female	147 (47)	Reference		Reference	
Smoking status (BI)			0.006		0.002
0	122 (39)	Reference		Reference	
0–600	67 (21)	5.3 (2.0–16.8)		1.4 (0.5–3.7)	
>600	124 (40)	4.0 (1.4–8.1)		3.2 (1.6–5.4)	
Preoperative serum CEA			0.482		0.024
<5 ng/ml	250 (80)	Reference		Reference	
≥5 ng/ml	63 (20)	1.4 (0.6–3.5)		2.0 (1.1–5.1)	
Other malignancies			0.076		0.015
Absent	201 (65)	Reference		Reference	
Present	111 (35)	1.9 (0.9–4.2)		2.0 (1.2–3.8)	
Radiological tumor size			0.447		0.438
≤2 cm	247 (79)	Reference		Reference	
>2 cm	66 (21)	1.4 (0.6–3.4)		1.3 (0.7–2.7)	
Solid tumor size on CT			0.027		0.010
≤1 cm	152 (49)	Reference		Reference	
>1 cm	161 (51)	2.3 (1.1–4.5)		2.1 (1.2–3.7)	
Consolidation/tumor ratio			0.028		0.077
≤50%	106 (34)	Reference		Reference	
>50%	207 (66)	2.6 (1.1–4.7)		1.7 (1.0–3.0)	
Diseased side			0.052		0.544
Right	163 (53)	Reference		Reference	
Left	148 (47)	2.0 (1.0–4.1)		0.8 (0.5–1.5)	
Tumor location			0.341		0.173
S1–5	173 (56)	Reference		Reference	
S6	86 (27)	1.8 (0.8–4.2)		1.6 (0.9–3.0)	
S7–10	54 (17)	1.5 (0.5–4.5)		0.6 (0.3–1.6)	
Reason for seg.			0.295		0.079
Intentional	226 (72)	Reference		Reference	
Unfit for lobectomy	87 (28)	1.5 (0.7–3.4)		1.7 (0.9–3.3)	
Number of seg. resected			0.170		0.235
Single	105 (59)	Reference		Reference	
Multiple	74 (41)	1.6 (0.8–3.6)		0.7 (0.4–1.3)	
Lymphadenectomy extent			0.049		0.838
Sampling only or Hilum	116 (37)	Reference		Reference	
Mediastinum	197 (63)	2.3 (1.0–4.3)		1.1 (0.6–1.9)	
Tumor histology			0.234		0.111
Ad.	261 (83)	Reference		Reference	
Sq.	46 (15)	1.9 (0.8–6.6)		2.0 (1.0–6.0)	
Others	6 (2)	2.3 (0.2–66.6)		2.1 (0.2–49.1)	

Figure 1. The OS curve of the 313 patients.

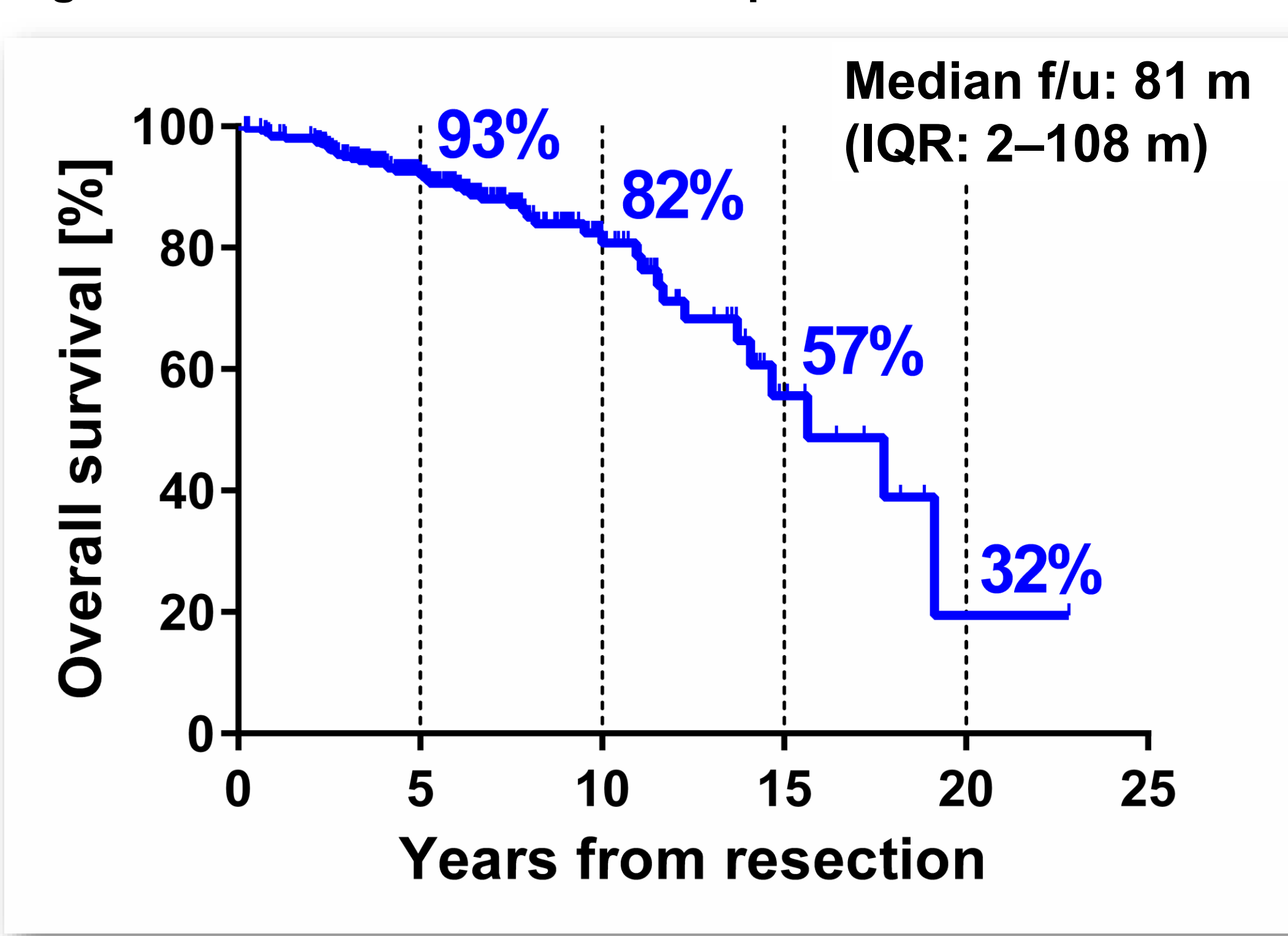


Table 2. The First Recurrence Sites and Treatment in the 31 Patients who Experienced Postoperative Recurrence.

Relapse Site	Relapse	Treatment
Local	14 (45)	BSC 5 (36) Surgery 3 (21) Radiation 4 (29) Pharmacotherapy 2 (14)
Surgical margin	5	
Lymph node (Ipsilateral)	1	
Margin + Hilum lymph node	1	
Pulmonary metastasis (Ipsilateral)	6	
Dissemination	1	
Distant	11 (35)	BSC 0 (0) Surgery 1 (9) Radiation 3 (27) Pharmacotherapy 7 (64)
Pulmonary metastasis (Contralateral)	6	
Bone	2	
Pulmonary metastasis + Other organ(s)	2	
Bone + Liver	1	
Local and distant	6 (19)	BSC 1 (17) Surgery 0 (0) Radiation 0 (0) Pharmacotherapy 5 (83)

Table 3, 4. Multivariate Cox Proportional Hazard Analysis of RFP and OS.

Variable (RFP)	Hazard Ratio	95% CI	p value
Consolidation-to-tumor ratio [%]	1.018	1.005–1.032	0.009

Variable (OS)	Hazard Ratio	95% CI	p value
Age [years]	1.062	1.018–1.108	0.005
Male sex	2.439	1.272–4.676	0.007
Preoperative serum CEA [ng/ml]	1.105	1.026–1.190	0.008
Prior treatment for other malignancies/comorbid other malignancies	1.810	1.024–3.198	0.041