

INTRODUCTION

- Solid or micropapillary patterns are classified as high-grade.
- Are minimal presence of solid or micropapillary patterns associated with pathological invasiveness?

	Well differentiated	Moderately differentiated	Poorly differentiated
Predominant patterns	Lepidic	Acinar or Papillary	Any
High-grade patterns*	No or less than 20%	No or less than 20%	20% or more
* solid, micropapillary, and complex glandular patterns			

METHODS

Design:

- A retrospective study conducted at a single institution.
- Surgery for clinical stage 0 or I lung adenocarcinoma (UICC 9th) from Jan 2019 to Dec to 2024 are included.
- Patients are divided into 2 groups based on the percentages of solid or micropapillary components : 0%, without high-grade patterns ≤20%, with high-grade patterns
- Pathological invasiveness and recurrence free survival are compared between 2 groups.

RESULTS

Figure 1 Patient Flow

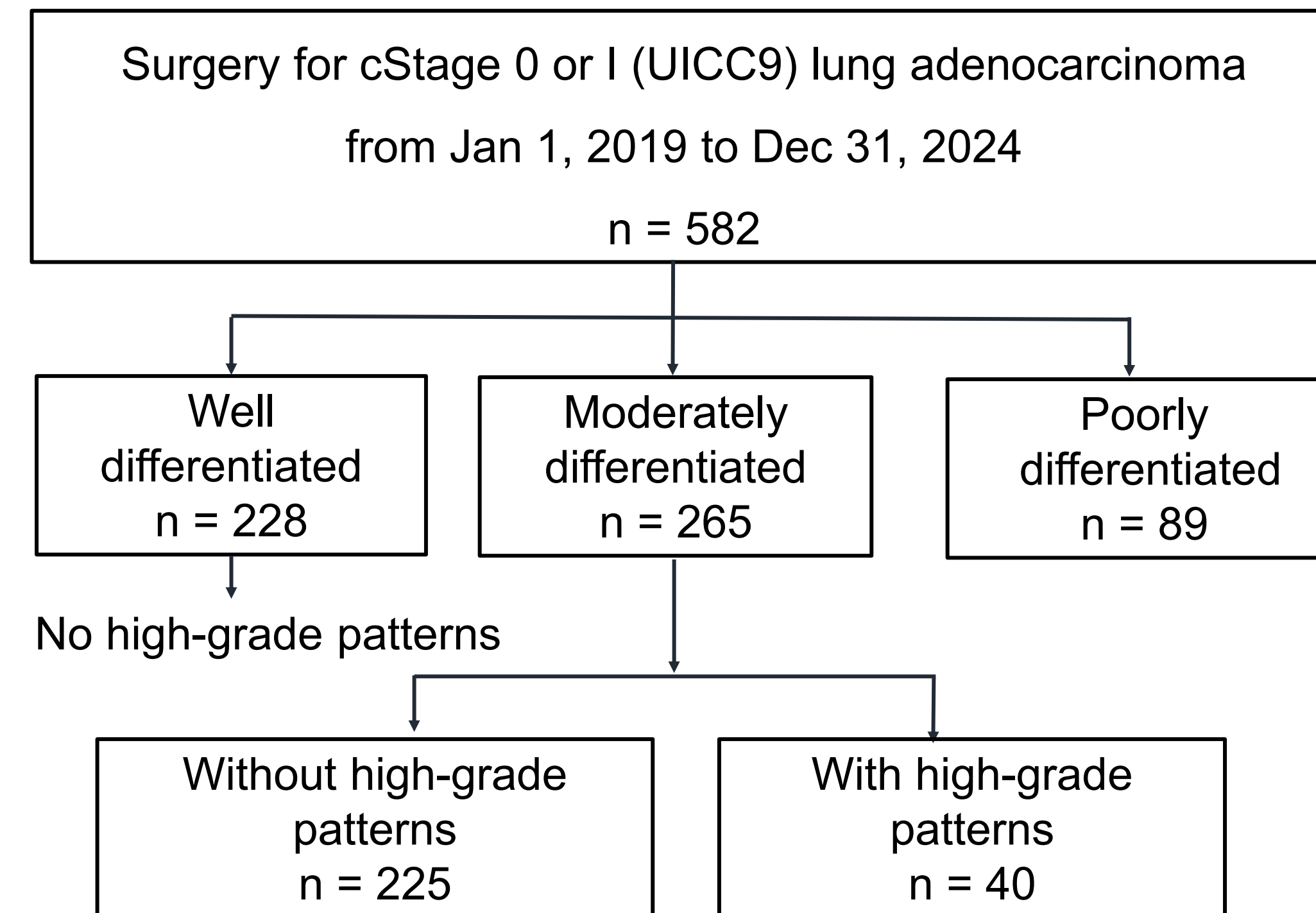


Figure 3 Pathological invasiveness

	Well differentiated n = 228	Moderately differentiated n = 265	Poorly differentiated n = 89	p values
ly+	1 (0.4%)	36 (13.6%)	43 (48.3%)	< .001
v+	0 (0%)	27 (10.2%)	14 (15.7%)	< .001
pl+	0 (0%)	36 (13.6%)	16 (17.9%)	< .001

	Without high-grade patterns n = 225	With high-grade patterns n = 40	p values
ly+	24 (12.7%)	12 (30.0%)	0.004
v+	7 (3.1%)	4 (10.0%)	0.066
pl+	27 (12.0%)	9 (22.5%)	0.083

Figure 4 Recurrence Free Survival

	Without high-grade patterns n = 225	With high-grade patterns n = 40	p values
Recurrence, n (%)	16 (7.1%)	9 (22.5%)	0.006
Death, n (%)	6 (2.7%)	2 (5.0%)	0.346
5-year RFS, % (IQR)	83.4 (74.6–89.3)	66.9 (40.9–83.5)	0.016

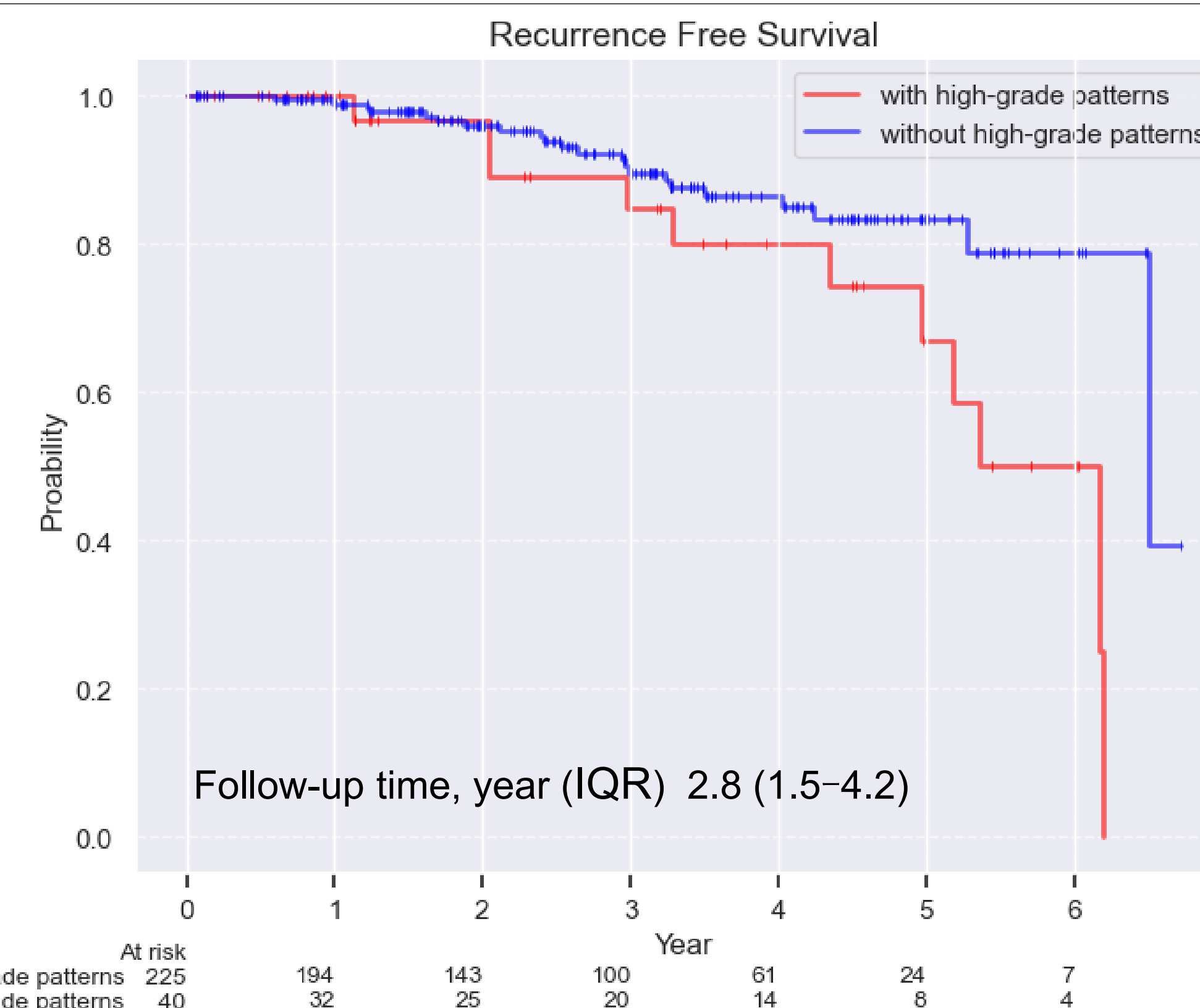
RFS, recurrence free survival; IQR, interquartile range

5-year RFS was significantly worse in cases with high-grade patterns (66.9% vs. 83.4%, $p = 0.016$)

Figure 2 Patient Characteristics

Factors	Without high-grade patterns n = 225	With high-grade patterns n = 40	p values
Age, median (IQR)	73 (65–78)	75 (69–77)	0.958
Female, n (%)	115 (51.1)	19 (47.5)	0.733
Smoking history, n (%)	105 (46.7)	21 (55.5)	0.391
FEV _{1.0} , L (IQR)	2.2 (1.8–2.6)	2.2 (2.0–2.5)	0.549
Charlson comorbidity index, n (%)			0.339
0	114 (50.7)	26 (65.0)	
1-2	101 (44.9)	14 (35.0)	
≥3	10 (4.4)	0 (0)	
Clinical stage, n (%)			0.011
0, IA	196 (87.1)	29 (72.5)	
IB	29 (12.9)	11 (27.5)	
Operation, n (%)			0.079
Lobectomy	172 (76.4)	37 (92.5)	
Segmentectomy	35 (15.6)	2 (5.0)	
Wedge resection	18 (8.0)	1 (2.5)	
Consolidation to tumor ratio			
1	106 (47.1)	33 (82.5)	< .001

DLCO, diffusing capacity of the lung for carbon monoxide; FEV, forced expiratory volume; IQR, interquartile range



DISCUSSION AND CONCLUSION

Actionable Take Away Message

- Even a minimal presence of solid or micropapillary components were associated with pathological invasiveness and poorer prognosis in moderately differentiated lung adenocarcinoma.

Future Direction for Research

- Even in patients with early-stage, moderately differentiated lung adenocarcinoma, the presence of solid or micropapillary patterns may warrant additional therapy or more intensive follow-up.

ACKNOWLEDGEMENTS

- Funding and Conflicts of Interest: All authors have none to declare.
- Ethical Statement: This study was conducted in accordance with the Declaration of Helsinki and the Ethical Guidelines for Epidemiological Research in Japan.
- Presentation Link

