

Supplementary Tables

Supplementary Table 1. Comparison of lung cancer sizes between causes of delayed diagnosis in entire population.

Causes of delayed diagnosis	Detection error (n=24)		Other causes (n=26)	P value
Size (mm)	9.8 (7.2-14.7)		16.7 (11.8-28.1)	<0.001
	Human error (n=13)	Other causes (n=11)		
Size (mm)	10.8±4.8	10.3±4.7		0.779

Data are presented as median (interquartile range) or mean ± standard deviation.

Supplemental Table 2. Comparison of characteristics of lesions between patients with stage shift and patients without stage shift.

	Entire population			Solid subgroup			Subsolid subgroup		
	Stage shift (n=22)	No stage shift (n=123)	P value	Stage shift (n=16)	No stage shift (n=65)	P value	Stage shift (n=6)	No stage shift (n=56)	P value
Age¹	72.2 (67.4-75.9)	68.8 (62.3-74.5)	0.035	72.5 (68.0-75.6)	69.9 (63.6-75.1)	0.151	70.1 (66.5-76.9)	68.0 (59.2-72.8)	0.205
Heavy smoker ²	10 (45.5)	39 (32)	0.219	10 (62.5)	27 (42.2)	0.145	0 (0)	11 (19.6)	0.580
Family history of lung cancer	0 (0)	13 (10.7)	0.209	0 (0)	4 (6.5)	0.576	0 (0)	9 (16.4)	>0.999
Size (mm) ¹	16.5 (11.7-26.4)	20.1 (13.7-30.6)	0.154	16.1 (8.2-25.8)	24.9 (16.5-37.8)	0.030	16.5 (15.3-29.5)	16.7 (10.9-27.0)	0.568
Symptom	12 (54.5)	56 (45.5)	0.480	8 (50)	25 (39.1)	0.651	4 (66.7)	30 (52.6)	0.538
Time to diagnosis (months) ¹	20.4 (10.5-37.8)	2.2 (0.6-21.8)	<0.001	14.5 (10.0-34.5)	0.9 (0.3-7.25)	<0.001	26.7 (21.6-53.9)	8.2 (1.9-37.1)	0.078
Morphological characteristic			0.102						
Solid	16 (72.7)	65 (53.7)		NA	NA	NA	NA	NA	NA
Part-solid	6 (27.3)	38 (31.4)		NA	NA	NA	NA	NA	NA
Pure GGN	0 (0)	18 (14.9)		NA	NA	NA	NA	NA	NA
Location			0.059			0.140			0.022

Upper	7 (31.8)	63 (51.2)		7 (43.8)	35 (53.8)		0 (0)	28 (50.0)	
Middle	2 (9.1)	12 (9.8)		2 (12.5)	7 (10.8)		0 (0)	5 (8.9)	
Lower	9 (40.9)	43 (35.0)		4 (25.0)	21 (32.3)		5 (83.3)	21 (37.5)	
Other	4 (18.2)	5 (4.1)		3 (18.8)	2 (3.1)		1 (16.7)	2 (3.6)	
Stage at the time of CT			0.115			0.108			>0.999
Stage I	19 (86.4)	89 (72.4)		13 (81.3)	33 (50.8)		6 (100)	54 (96.4)	
Stage II	1 (11.1)	8 (6.5)		1 (6.3)	6 (9.2)		0 (0)	2 (3.6)	
Stage III	2 (9.1)	11 (8.9)		2 (12.5)	12 (18.5)		0 (0)	0 (0)	
Stage IV	0 (0)	15 (12.2)		0 (0)	14 (21.5)		0 (0)	0 (0)	
Stage at the time of diagnosis			<0.001			0.001			<0.001
Stage I	0 (0)	88 (71.5)		0 (0)	32 (49.2)		0 (0)	54 (96.4)	
Stage II	2 (9.1)	8 (6.5)		2 (13.3)	6 (9.2)		0 (0)	2 (3.6)	
Stage III	8 (36.4)	11 (8.9)		6 (40.0)	12 (18.5)		1 (16.7)	0 (0)	
Stage IV	12 (54.5)	16 (13.0)		7 (46.7)	15 (23.1)		5 (83.3)	0 (0)	
Histological diagnosis			0.085			0.148			0.098
Adenocarcinoma	11 (55)	97 (80.8)		6 (42.9)	41 (65.1)		5 (83.3)	55 (91.7)	
Squamous cell carcinoma	8 (40)	15 (12.5)		7 (50.0)	15 (23.8)		1 (16.7)	0 (0)	

Small cell carcinoma	1 (5)	8 (6.7)		1 (7.1)	7 (12.5)		0 (0)	0 (0)	
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Unless otherwise indicated, the data are shown as the number (percentage) of patients. ¹The data are presented as the median (interquartile range).

²More than 30 pack years CT, computed tomography; GGN, ground glass nodule; N/A, not available

Supplemental Table 3. Logistic regression analysis for prediction of stage shift.

	Univariate		Multivariate	
	OR (95% CI)	P value	OR (95% CI)	P value
Size ¹	0.974 (0.939 to 1.011)	0.161		
Time to diagnosis ²	1.033 (1.010 to 1.056)	0.004	1.039 (1.013 to 1.066)	0.003
Stage at the time of CT ²				
Resectable (reference)	1	N/A		
Unresectable (stage IIIb or IV)	0.219 (0.028 to 1.713)	0.148		
Pathology				
Adenocarcinoma (reference)	1	N/A	1	N/A
Non-adenocarcinoma (squamous cell carcinoma or small cell carcinoma)	3.451 (1.280 to 9.298)	0.014	5.233 (1.730 to 15.829)	0.003

¹Size criteria, for 1mm increase; ²Time to diagnosis criteria, for 1month increase; OR, odd ratio; CI, confidence interval; CT, computed tomography; N/A, not available