

Table SI. 2x2 classification table and performance measures.

Test condition (ANGPT4 >9.1)	Actual condition (lung metastasis)	
	(+)	(-)
(+)	A, True positive (18)	B, False positive (2)
(-)	C, False negative (2)	D, True negative (18)

Relationship between the plasma ANGPTL4 levels and the lung metastasis status in a contingency table.

Performance measures: Sensitivity = $A/(A+C) = 18/(18+2)=90\%$; and specificity = $D/(B+D) = 18/(2+18)=90\%$. Numbers in bracket show the number of patients. ANGPTL4, angiopoietin-like 4.

Table SII. ROC cut-points evaluation.

Cut-point	Sensitivity, %	Specificity, %	Correctlyclassified, %	LR+	LR-
≥6.71	100.00	65.00	82.50	2.8571	0
≥7.03	100.00	70.00	85.00	3.3333	0
≥7.29	100.00	75.00	87.50	4	0
≥7.76	100.00	80.00	90.00	5	0
≥8.36	95.00	80.00	87.50	4.75	0.0625
≥8.5	95.00	85.00	90.00	6.3333	0.0588
≥9.1	90.00	85.00	87.50	6	0.1176
≥9.105	90.00	90.00	90.00	9	0.1111
≥9.6005	85.00	90.00	87.50	8.5	0.1667
≥10.03	80.00	90.00	85.00	8	0.2222
≥10.165	75.00	90.00	82.50	7.5	0.2778
≥10.3	70.00	90.00	80.00	7	0.3333
≥10.53	70.00	95.00	82.50	14	0.3158
≥10.625	65.00	95.00	80.00	13	0.3684

roctab LungMeta angiopoietin-like 4, binomial detail (Stata command to perform ROC analysis with the condition of binomial distribution). Details of sensitivity and specificity values by cut-points. The area under the ROC curve is 0.945 ± 0.0371 (SE)(n=40) and the binomial exact 95% confidence interval is 0.831-0.994. LR, likelihood ratio; ROC, receiver operating characteristic.

Table SIII. Bootstrap ROC analysis results (number of patients, 40;replications, 982).

Cut-point variable	Observedcoefficient	Bootstrap standard error	Z score	P-value> z	Normal-based (95% confidence interval)
_bs_1	9.1	.915	9.95	< 0.001	7.31-10.89

bootstrap e(cutpoint), rep(1000): cutptLungMeta ANGPTL4, noadjust (Stata command to perform 1,000 times bootstrap data replicated ROC analysis). Validreplications were 0.982. The results show the optimal cut-point under the title of observed coefficient, and 95% confidence intervals based on the normal distribution.ROC, receiver operating characteristic.

Table SIV. 2x2 classification to determine 95% confidence interval for sensitivity and specificity.

Lung metastasis	Test result		Total, n
	$\leq$ CP (B), n	> CP (A), n	
No metastasis (N)	18	2	20
Metastasis-positive (M)	2	18	20
Total	20	20	40

CP, cut-point (9.1 ng/ml).

Table SV. 95% confidence interval for sensitivity and specificity.

Sensitivity measure	Value	95% Confidence interval
Prevalence $\Pr(M)$, %	50.0	33.8-66.2
Sensitivity $\Pr(A M)$, %	90.0	68.3-98.8
Specificity $\Pr(B N)$, %	90.0	68.3-98.8
ROC area (Sens. + Spec.)/2	0.90	0.80-1.00
Likelihood ratio $\Pr(A M)/\Pr(A N)$	9.00	2.40-33.79
Likelihood ratio $\Pr(B M)/\Pr(B N)$	0.11	0.03-0.42
Odds LR(+)/LR(-)	81.00	11.14-588.26
Positive predictive $\Pr(M A)$, %	90.0	68.3-98.8
Negative predictive $\Pr(N B)$, %	90.0	68.3-98.8

diagti 18 2 2 18 (Stata command to perform performance measurements for a 2x2 classification table with 95% confidence intervals). A, B, M, N are shown in Table SIV. LR, likelihood ratio; ROC, receiver operating characteristic; Pr, proportion.