

Figure S1. Receiver-operating characteristic curve analysis for SUVmax and T/M ratio in predicting (A) c-malignant, (B) HRR or (C) p-malignant anterior mediastinal tumors. Area under the curve of each PET parameter was indicated in three classifications, respectively. (A) c-malignant (P=0.7144); (B) HRR (P=0.0837); and (C) p-malignant: (P=0.5141). SUVmax, maximum standardized uptake value; T/M, tumor to mediastinal; c-, clinical; HRR, high-risk recurrence; p-, pathological.

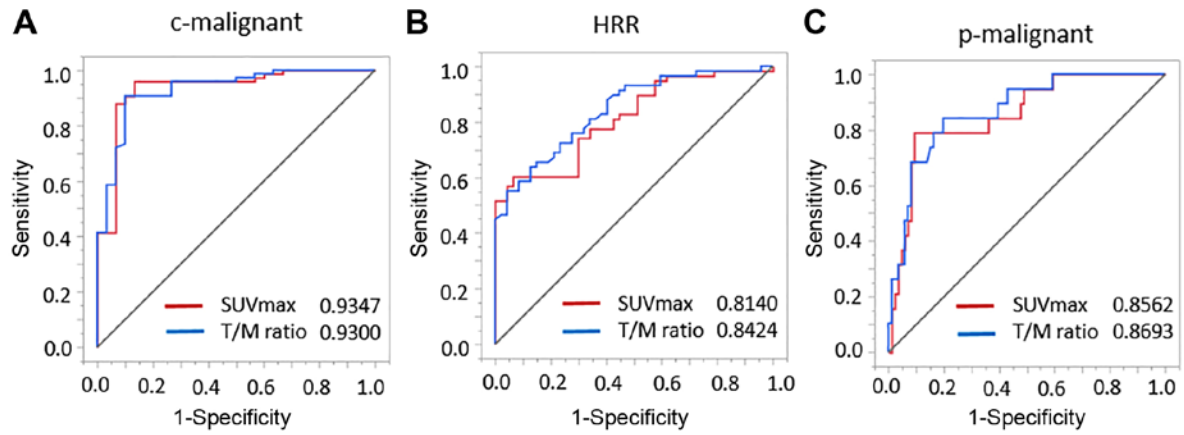


Figure S2. Receiver-operating characteristic curve analysis of the extended cohort (n=132) created by adding the 27 patients who underwent positron emission tomography at another institution, for T/M ratio in predicting (A) c-malignant, (B) HRR or (C) p-malignant anterior mediastinal tumors. AUC, area under the curve; T/M, tumor to mediastinal; c-, clinical; HRR, high-risk recurrence p, pathological.

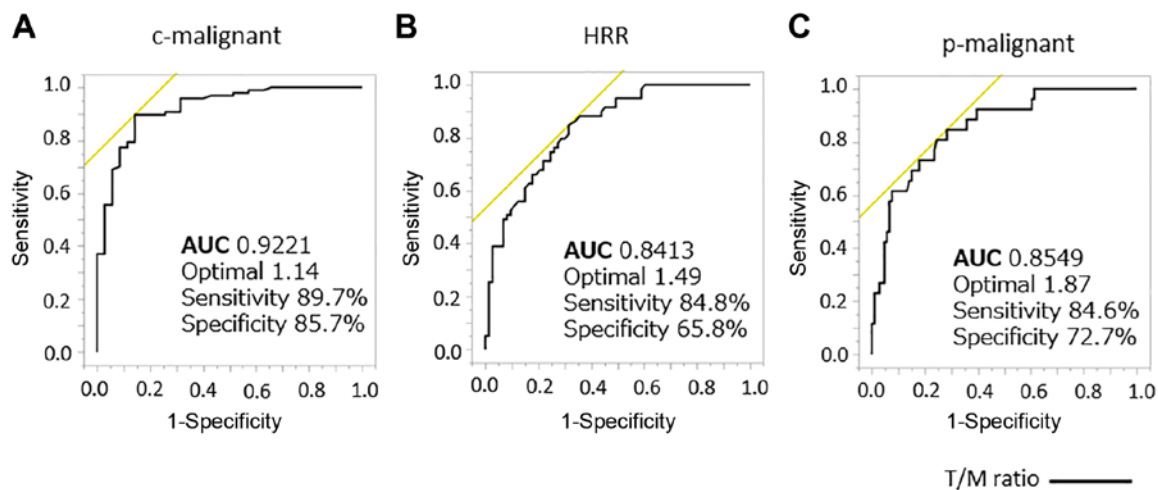


Table SI. Clinical features of the benign and malignant groups in accordance with the malignant potential of anterior mediastinal tumors calculated using three classification systems.

Variable	c-benign (n=30)	c-malignant (n=75)	P-value	LRR (n=58)	HRR (n=47)	P-value	p-benign (n=86)	p-malignant (n=19)	P-value
Age, years (range)	54.3±17.3 (15.0-83.0)	59.8±15.8 (15.0-90.0)	0.1244	59.8±16.0 (15.0-90.0)	56.2±16.7 (15.0-83.0)	0.2601	58.7±16.1 (15.0-90.0)	55.8±17.8 (15.0-80.0)	0.4869
Sex M/F, n (%)	14/16 (46.7/53.3)	41/34 (54.7/45.3)	0.4585	28/30 (48.3/51.7)	27/20 (57.5/42.6)	0.3490	41/45 (47.7/52.3)	14/5 (73.7/26.3)	0.0362
Diameter, cm (range)	4.8±3.1 (0.7-12.9)	6.0±3.0 (1.0-14.0)	0.0552	5.5±3.3 (0.7-14.0)	6.0±2.7 (1.0-11.5)	0.4071	5.4±3.1 (0.7-14.0)	5.3±2.7 (1.0-11.0)	0.8623

M, male; F, female; c-, clinical; LRR, low-risk recurrence; HRR, high-risk recurrence; p-, pathological.

Table SII. Comparison of the T/M ratio of the benign and malignant groups in accordance with the malignant potential of anterior mediastinal tumors calculated using three classification systems.

Variable	c-benign (n=30)	c-malignant (n=75)	P-value	LRR (n=58)	HRR (n=47)	P-value	p-benign (n=86)	p-malignant (n=19)	P-value
T/M ratio, mean±SD (range)	0.84±0.39 (0.47-2.19)	2.35±1.26 (0.64-6.18)	<0.0001	1.31±0.88 (0.47-5.60)	2.67±1.31 (0.91-6.18)	<0.0001	1.59±0.12 (0.47-5.6)	3.42±1.41 (1.15-6.18)	<0.0001

c-, clinical; LRR, low-risk recurrence; HRR, high-risk recurrence; p-, pathological; T/M, tumor to mediastinal.

Table SIII. Optimal cut-off value of the T/M ratio for predicting clinically malignant, high-risk recurrence and pathologically malignant anterior mediastinal tumors.

T/M ratio	AUC	Optimal cut-off	Sensitivity	Specificity	PPV	NPV	Accuracy
c-malignant	0.9300	1.14	90.7	90.0	95.8	79.4	90.5
HRR	0.8424	1.46	87.2	49.3	52.6	85.7	73.3
p-malignant	0.8693	2.18	84.2	80.2	48.5	95.8	81.0

c-, clinical; HRR, high-risk recurrence; p-, pathological; AUC, area under the curve; PPV, positive predictive value; NPV, negative predictive value; T/M, tumor to mediastinal.