Article

Multi-Phase, Contrast-Enhanced Computed Tomography-Based Radiomic Prognostic Marker of Non-Metastatic Pancreatic Ductal Adenocarcinoma

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Table S1. Univariate and multivariate Cox hazard regression analysis of clinical and radiologic parameters in patients with borderline resectable or locally advanced pancreatic cancer on follow-up CT scan.

	Subgroup	Patients (%)	Median OS (95% CI) (months)	*p-value*	Univariate analysis		Multivariate analysis	
					HR (95% CI)	*p-value*	aHR (95% CI)	*p-value*
Tumor size	T1 (≤ 2 cm)	36 (25.9%)	20.5 (10.7–30.4)	<0.001	1 (reference)	-	1 (reference)	-
	T2 (2–4 cm)	63 (45.3%)	15.6 (11.7–19.5)		1.606 (0.944–2.732)	0.080	1.503 (0.880–2.566)	0.136
	T3 (>4cm)	40 (28.8%)	8.9 (7.8–10.1)		3.343 (1.904–5.871)	<0.001	2.825 (1.580–5.051)	<0.001
UP	<32.3 HU	35 (25.2%)	10.4 (6.7–14.1)	0.001	1 (reference)	0.001	1 (reference)	0.196
	≥32.3 HU	104 (74.8%)	16.1 (12.2–20.0)		0.474 (0.304–0.741)		0.628 (0.309–1.272)	
PPP	<48.6 HU	35 (25.2%)	8.9 (5.0–12.9)	0.007	1 (reference)	0.008	1 (reference)	0.009
	≥48.6 HU	104 (74.8%)	16.1 (12.9–19.3)		0.558 (0.363–0.859)		0.767 (0.479–0.952)	
PVP	<52.0 HU	22 (15.8%)	6.8 (4.0–9.7)	<0.001	1 (reference)	<0.001	1 (reference)	0.085
	≥52.0 HU	117 (84.2%)	16.1 (12.4–19.8)		0.383 (0.233–0.629)		0.550 (0.278–1.086)	

Abbreviations: BRPC, borderline resectable pancreatic cancer; LAPC, locally advanced pancreatic cancer; OS, overall survival; HR, hazard ratio; aHR, adjusted hazard ratio; CI, confidence interval; UP, unenhanced phase; PPP, pancreatic parenchymal phase; PVP, portal venous phase; HU: Hounsfield unit

Table S2. Correlation between tumor size and intra-tumoral contrast enhancement.

		RPC (n = 159)				BRPC/LAPC (n = 139)			
		T1 (≤ 2 cm)	**T2 (2–4 cm)**	**T3 (>4cm)**	***p-value***	**T1 (≤ 2 cm)**	**T2 (2–4 cm)**	**T3 (>4cm)**	***p-value***
Initial CT	UP (HU)	35.9 (28.5–43.3)	37.3 (35.8–38.8)	32.8 (30.5–35.2)	0.490	35.9 (28.5–43.3)	37.3 (35.8–38.8)	32.8 (30.5–35.2)	0.587
	PPP (HU)	72.3 (48.3–96.2)	65.9 (61.9–69.9)	48.9 (44.9–52.9)	0.056	72.3 (48.3–96.2)	65.9 (61.9–69.9)	48.9 (44.9–52.9)	0.052
	PVP (HU)	83.9 (52.8–114.9)	82.9 (77.5–88.3)	59.9 (54.7–65.2)	0.420	83.9 (52.8–114.9)	82.9 (77.5–88.3)	60.0 (54.7–65.2)	0.420
Follow-up CT	UP (HU)	NA	NA	NA	NA	40.5 (32.0–48.9)	37.8 (35.7–39.9)	35.2 (32.7–37.8)	0.851
	PPP (HU)	NA	NA	NA	NA	71.4 (54.2–88.6)	62.8 (58.9–66.7)	54.2 (49.0–59.4)	0.978
	PVP (HU)	NA	NA	NA	NA	94.6 (72.9–116.3)	82.1 (76.7–87.4)	66.3 (59.6–73.1)	0.972

Abbreviations: RPC, resectable pancreatic cancer; BRPC, borderline resectable pancreatic cancer; LAPC, locally advanced pancreatic cancer; CT, computed tomography; PPP, pancreatic parenchymal phase; HU, Hounsfield unit; NA, not applicable