

*Supplementary materials*

## Prognosis of Early-Stage Hepatocellular Carcinoma: Comparison between Trans-Arterial Chemoembolization and Radiofrequency Ablation

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Table S1. Association between radiological and biological responses (n=388).

		Radiological response			
		Objective response	Non-response	Objective response	Non-response
Biological response	AFP response	128 (36.2%)	5 (14.7%)	PIVKA-II response	107 (30.2%)
	AFP non-response	226 (63.8%)	29 (85.3%)	PIVKA-II non-response	247 (69.8%)

Abbreviations: AFP, alpha-fetoprotein; PIVKA-II, prothrombin induced by vitamin K absence-II

Table S2. Predictors for recurrence

Variables	Univariate analysis		Multivariate analysis	
	HR (95% CI)	p-value	Adjusted HR (95% CI)	p-value
Age, years	1.013 (1.001-1.026)	0.034	1.009 (0.995-1.022)	0.219
Female	1.099 (0.851-1.418)	0.469		
Etiology				
HBV	1	Ref	1	Ref
HCV	1.46 (1.073-1.986)	0.016	1.368 (0.980-1.911)	0.066
Non-B, Non-C	0.899 (0.634-1.277)	0.552	0.917 (0.639-1.315)	0.637
Liver cirrhosis	0.956 (0.729-1.252)	0.742		
Child-Pugh class B (vs.A)	1.091 (0.743-1.601)	0.657		
Platelet count	0.998 (0.996-1.000)	0.067		
Tumor size	1.212 (1.092-1.345)	<0.001	1.06 (0.925-1.215)	0.403
Tumor number > 1	1.547 (1.192-2.006)	0.001	1.211 (0.876-1.674)	0.248
AFP, ng/mL	1 (0.999-1.000)	0.902		

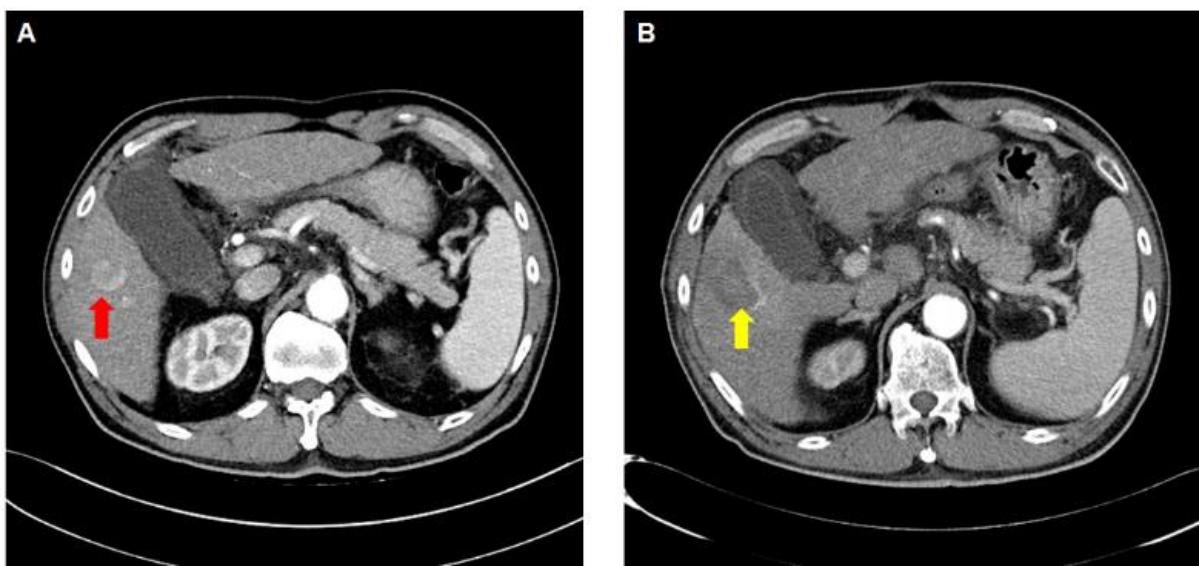
PIVKA-II, mAU/mL	1 (0.999-1.000)	0.289		
RFA (vs. TACE)	0.560 (0.432-0.726)	<0.001	0.628 (0.473-0.834)	0.001

**Abbreviations:** HR, hazard ratio; CI, confidence interval; HBV, hepatitis B virus; Ref, reference; HCV, hepatitis C virus; AFP, alpha-fetoprotein; PIVKA-II, prothrombin induced by vitamin K absence-II; RFA, radiofrequency ablation; TACE, trans-arterial chemoembolization

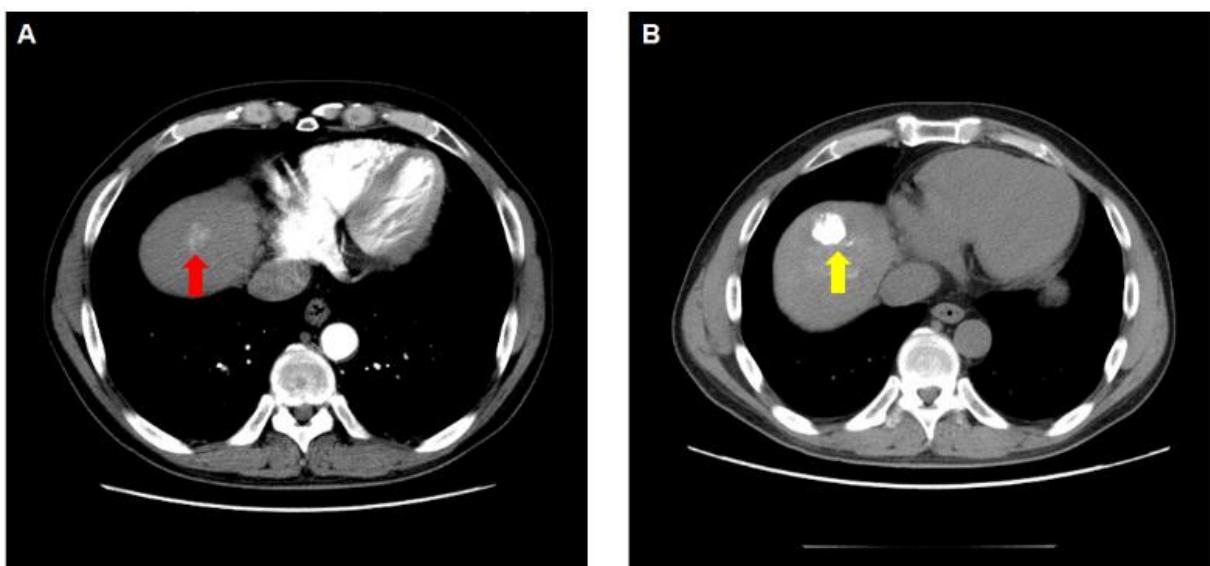
**Table S3. Predictors for death**

Variables	Univariate analysis		Multivariate analysis	
	HR (95% CI)	p-value	Adjusted HR (95% CI)	p-value
Age, years	1.045(1.023-1.067)	<0.001	1.042(1.019-1.067)	<0.001
Female	1.185(0.792-1.775)	0.409		
Etiology				
HBV	1	Ref	1	Ref
HCV	1.814(1.119-2.940)	0.016	1.092(0.639-1.865)	0.747
Non-B, Non-C	1.93(1.200-3.104)	0.007	1.410(0.853-2.330)	0.181
Liver cirrhosis	1.676(1.011-2.776)	0.045	1.498(0.901-2.492)	0.404
Child-Pugh class B (vs.A)	2.180(1.330-3.573)	0.002	2.167(1.291-3.636)	0.003
Platelet count	0.997(0.994-1.001)	0.205		
AFP, ng/mL	1(0.999-1.000)	0.623		
PIVKA-II, mAU/mL	1(0.997-1.000)	0.564		
Tumor size	1.094(0.922-1.298)	0.304		
Tumor number > 1	0.806(0.501-1.296)	0.374		
RFA (vs. TACE)	1.33(0.910-1.943)	0.141	1.325(0.902-1.948)	0.151

**Abbreviations:** HR, hazard ratio; CI, confidence interval; HBV, hepatitis B virus; Ref, reference; HCV, hepatitis C virus; AFP, alpha-fetoprotein; PIVKA-II, prothrombin induced by vitamin K absence-II; RFA, radiofrequency ablation; TACE, trans-arterial chemoembolization



**Figure S1.** Representative images where the red and yellow arrows indicate HCC before RFA (A) and CR status after RFA (B), respectively. Abbreviations: HCC, hepatocellular carcinoma; RFA, radiofrequency ablation; CR, complete response.



**Figure S2.** Representative images where the red and yellow arrows indicate HCC before TACE (A) and CR status after TACE (B), respectively. Abbreviations: HCC, hepatocellular carcinoma; TACE, trans-arterial chemoembolization; CR, complete response.



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