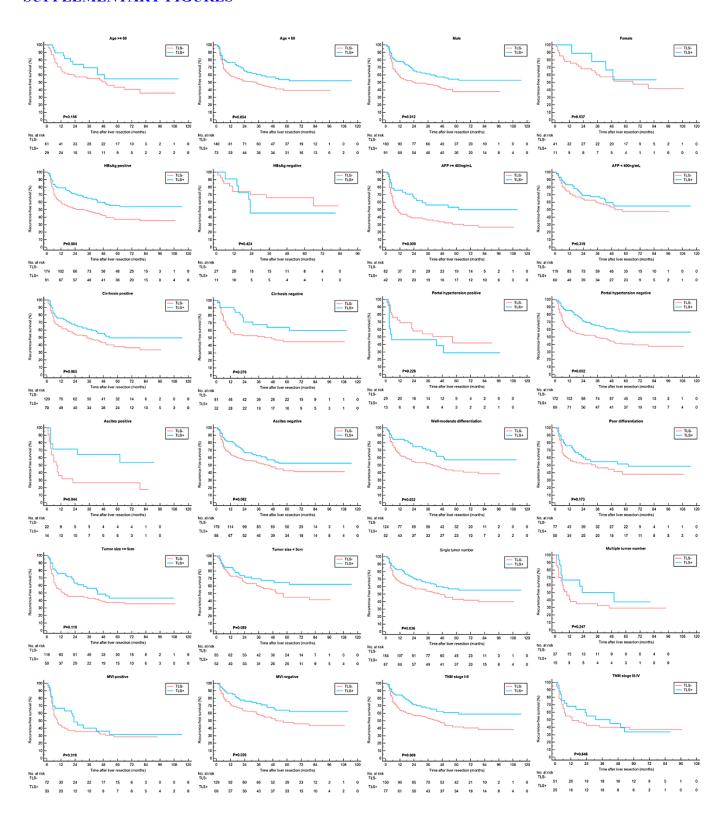
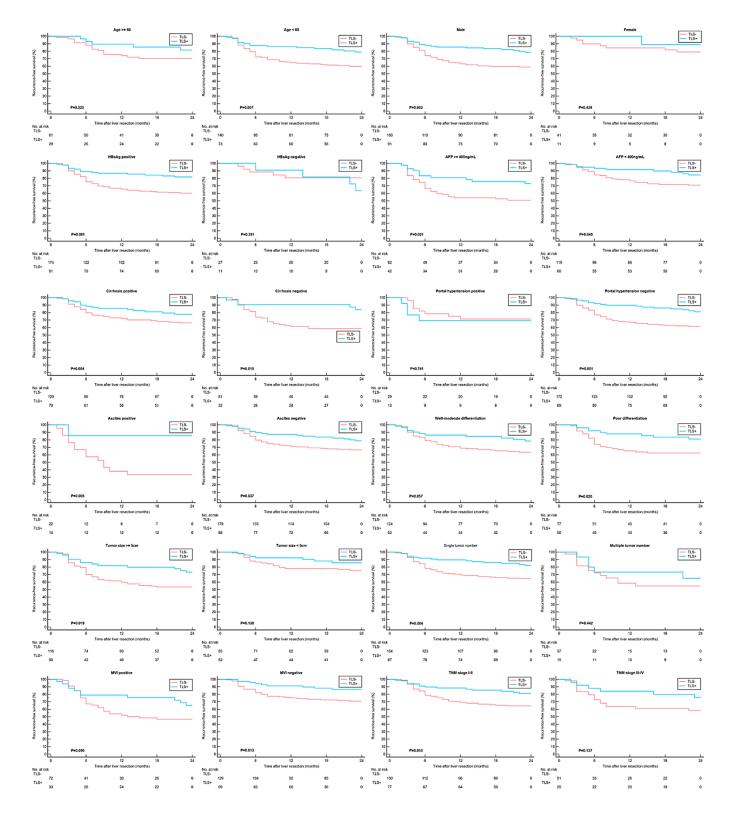
SUPPLEMENTARY FIGURES



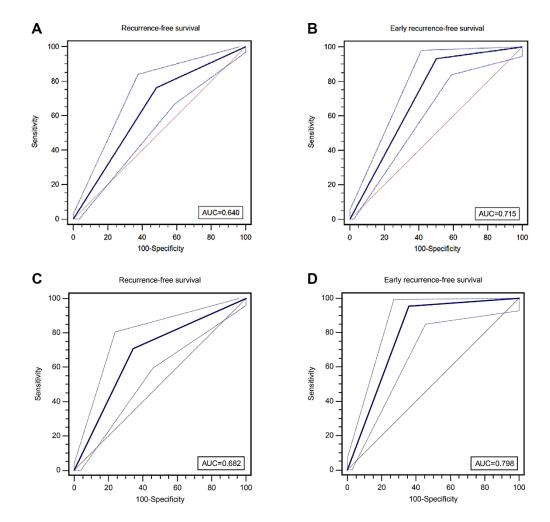
Supplementary Figure 1. Kaplan—Meier curves showing the association between the TLS and RFS stratified by subgroups in the training cohort. TLS, tertiary lymphoid structures; RFS, recurrence-free survival.



Supplementary Figure 2. Kaplan—Meier curves showing the association between TLS and early RFS stratified by subgroups in the training cohort. TLS, tertiary lymphoid structures; early RFS, early recurrence-free survival.

Subgroups	Patients (TLS+/TLS-)	HR (95%CI)		weight(%)	Interaction P-value
All	102/201	0.665 (0.470-0.921)	H===	100	
Age					0.81
≥60	29/61	0.616 (0.313-1.212)	—	26	
<60	73/140	0.678 (0.454-1.014)		74	
Sex		,			0.82
Male	91/160	0.629 (0.436-0.909)	H=	89.5	
Female	11/52	0.716 (0.246-2.081)		10.5	
HBsAg		(,			0.09
Positive	91/174	0.591 (0.408-0.854)	H=	88.2	
Negative	11/27	1.505 (0.546-4.145)		11.8	
Cirrhosis		(0.65
Positive	70/120	0.682 (0.451-1.031)	→	70.5	
Negative	32/81	0.572 (0.302-1.082)		29.5	
Portal hypertension		,			0.02
Positive	13/29	1.632 (0.724-3.694)	-	18.2	
Negative	89/172	0.559 (0.381-0.821)	H=1	81.8	
Ascites		(,			0.27
Positive	14/22	0.400 (0.157-1.020)	-	13.7	
Negative	88/179	0.705 (0.486-1.023)		86.3	
AFP		(0.23
≥400	42/82	0.514 (0.304-0.861)	H	44.1	
<400	60/119	0.789 (0.495-1.259)	H	55.9	
Tumor size		(,			0.74
≥5	50/116	0.705 (0.451-1.103)	 -	60	
<5	52/85	0.626 (0.362-1.081)		40	
Tumor number		,			0.92
Multiple	15/37	0.636 (0.289-1.401)		19.3	
Single	87/165	0.666 (0.453-0.978)	H	80.7	
Differentiation		,			0.61
Poor	50/77	0.711 (0.432-1.171)		48.7	
Well-moderate	52/124	0.593 (0.365-0.964)	H=	51.3	
MVI		,			0.46
Positive	33/72	0.774 (0.462-1.297)		44.8	
Negative	69/129	0.594 (0.373-0.945)	H=	55.2	
TNM stages		,			0.28
III-IV	25/51	0.869 (0.470-1.606)	⊢	31.8	
I-II	77/150	0.578 (0.380-0.879)	H=H	68.2	
BCLC stage		,			0.69
B-C	20/41	0.732 (0.373-1.436)		26.3	
0-A	82/160	0.624 (0.417-0.934)	H -	73.7	
		, ,	0 2 4	5	

Supplementary Figure 3. Subgroup analysis based on clinicopathological features (recurrence-free survival). TLS, tertiary lymphoid structures; AFP, alpha-fetoprotein; BCLC, Barcelona Clinic of Liver Cancer; TNM, tumor-nodes-metastasis.



Supplementary Figure 4. ROC curves evaluating the accuracy of TLS in predicting tumor recurrence in training cohort. (A) The AUC was 0.64 for TLS in predicting RFS; (B) The AUC was 0.715 for TLS in predicting early tumor recurrence; (C) The AUC was 0.682 for TLS in predicting RFS for patients with BCLC 0-A stage HCC; (D) The AUC was 0.798 for TLS in predicting early tumor relapse for patients with BCLC 0-A stage HCC. ROC, receiver operating characteristic; TLS, tertiary lymphoid structures; AUC, area under the receiver operating characteristic; RFS, recurrence-free survival.