

Supplementary Table 1: Clinical and biological variables associated with overall mortality and recurrence-free survival in patients with early HCC based on Cox univariable and multivariable models

Variables	UNIVARIATE ANALYSIS		MULTIVARIATE ANALYSIS	
	HR (95 % CI)	P	HR (95% CI)	P
OVERALL SURVIVAL				
Gender (male)	0.56 (0.20 ; 1.57)	0.27		
Age /10 (years)	0.92 (0.53 ; 1.59)	0.77		
Child Pugh				
A	1			
B	2.37(0.66; 8.44)	0.18		
C	3.49 (0.45; 27.23)	0.23		
Creatinine >80	0.74 (0.30 ; 1.85)	0.52		
AST (>2 ULN)	0.96 (0.38 ; 2.43)	0.94		
ALT (>2 ULN)	2.04 (0.66 ; 6.31)	0.21		
PAL (>2 ULN)	0.50 (0.14 ; 1.77)	0.28		
GGT (>2 ULN)	1.94 (0.64 ; 5.89)	0.24		
Alpha fetoprotein /10	1.0 (0.97 ; 1.03)	0.80		
Platelet /100	7.87 (0.01 ; 4873.13)	0.53		
Diabetes	2.11 (0.86 ; 5.18)	0.11		
Numbers of HCC >1	0.98 (0.33 ; 2.91)	0.96		
Size of HCC	1.03 (0.98 ; 1.06)	0.11		
Serum endocan > 5	1.74 (0.75 ; 4.04)	0.19		
Serum syndecan-1 > 50	2.75 (1.15 ; 6.57)	0.023		
Serum glypican-3 >2.5	1.55 (0.65 ; 3.71)	0.32		
Serum VEGF >240	0.66 (0.28 ; 1.53)	0.33		
RECURRENCE-FREE SURVIVAL				
Gender (male)	0.71 (0.30 ; 1.69)	0.44		
Age /10 (years)	1.05 (0.69; 1.59)	0.82		
Child Pugh				
A	1			
B	1.78 (0.62 ; 5.14)	0.29		
C	2.11 (0.28 ; 15.85)	0.47		
Creatinine >80	0.95 (0.47 ; 1.89)	0.87		
AST (>2ULN)	1.17 (0.57 ; 2.40)	0.67		
ALT (>2ULN)	0.96 (0.37 ; 2.52)	0.94		
PAL (>2ULN)	0.70 (0.28 ; 1.72)	0.43		
GGT (>2ULN)	1.11 (0.49 ; 2.52)	0.81		
Alpha fetoprotein /10	1.00 (1.00; 1.00)	0.72		
Platelet/100	2.74 (0.02 ; 403.38)	0.69		
Diabetes	1.98 (0.92 ; 4.30)	0.083		
Numbers of HCC >1	0.99 (0.40 ; 2.42)	0.98		
Size of HCC	1.01 (0.99 ; 1.04)	0.28		
Serum endocan > 5	2.17 (1.10 ; 4.27)	0.025	1.68 (0.78 ; 3.62)	0.19
Serum syndecan-1 > 50	2.17 (1.10 ; 4.28)	0.025	1.72 (0.79 ; 3.71)	0.17
Serum glypican-3 >2.5	1.05 (0.50 ; 2.20)	0.90		
Serum VEGF >240	0.75 (0.38 ; 1.47)	0.40		

AST: aspartate aminotransferase; ALT: alanine aminotransferase ; ALP: alkaline phosphatase; GGT: γ -glutamyl transferase level; ULN: upper limit of normal .

Supplementary figure 1: Subgroup analysis according to the Levels of serum proteoglycans and VEGF

Levels of serum proteoglycans and VEGF according to (A) the presence and stage of HCC stage in Child-Pugh A patients, (B) the presence of tumor portal thrombosis in the group of patients with “advanced” HCC and (C) according to the presence of esophageal varices (EV) in the group of patients without HCC. Data were compared using the non-parametric Kruskal-Wallis (more than two groups) or Mann-Whitney test (two groups).