

**Supplement 1. Characteristics of hepatocellular carcinoma HCC in patients without liver cirrhosis**

Characteristics	HBV (N = 105)	HCV (N = 13)	Alcoholic (N = 22)	Cryptogenic (N = 38)	P*
Age ≤50 years	38 (26.2)	0 (0)	0 (0)	7 (18.4)	<0.01
>50 years	67 (63.8)	13 (100.0)	22 (100)	31 (81.6)	
Sex Male	91(86.7)	12 (92.3)	22 (100)	29 (76.3)	0.066
female	14(13.3)	1 (7.7)	0 (0)	9 (23.7)	
Anti-HBc (+)		9(69.2)	21(95.5)	30(78.9)	0.110
Anti HBc (+) & OBI(+)		0	9(42.8)	18(60.0)	0.005
Hyperglycemia	13 (12.4)	1 (7.7)	8 (36.4)	5 (13.2)	0.029
Child–Pugh Class					
A	101 (96.2)	13 (100)	21 (95.5)	36 (94.7)	0.865
B	4 (3.8)	0 (0)	1 (4.5)	2 (5.3)	
C	0 (0)	0 (0)	0 (0)	0 (0)	
Mean BMI	23.5	21.5	23.5	23.3	0.109 <sup>c</sup>
Number of tumors					
1	84 (80.0)	8 (61.5)	19 (86.4)	32 (84.2)	0.834 <sup>a</sup>
2–3	14 (13.3)	3 (23.1)	2 (9.1)	3 (7.9)	
≥4	7 (6.7)	2 (15.4)	1 (4.5)	3 (7.9)	
Tumor Size (cm)					
≤2	8 (7.6)	3 (23.1)	2 (9.1)	3 (7.9)	0.215 <sup>a</sup>
2–5	33 (31.4)	6 (46.2)	8 (36.4)	17 (44.7)	
5–10	37 (35.2)	4 (30.8)	8 (36.4)	8 (21.1)	
>10	27 (25.7)	0 (0)	4 (18.2)	10 (26.3)	
PV invasion	7 (6.7)	0(0)	0 (0)	3 (7.9)	0.445
mUICC stage I	7 (6.7)	1 (7.7)	1 (4.5)	2 (5.3)	0.749
II	79 (75.2)	11 (84.6)	19 (86.4)	33 (86.8)	
III	14 (13.3)	1 (7.7)	2 (9.1)	1 (2.6)	
IV	5 (4.8)	0(0)	0(0)	2 (5.3)	
AFP (ng/mL)					
≤20	44(41.9)	11(84.6)	14(63.6)	23(60.5)	0.002 <sup>a</sup>
20–400	11(10.5)	1(7.7)	3(13.6)	6(15.8)	
>400	50(47.6)	1(7.7)	5(22.7)	9(23.7)	

\*Chi-square test; <sup>a</sup>Non-parametric trend test; <sup>b</sup>analysis of variance

Abbreviations: HBV, hepatitis B virus; HCV, hepatitis C virus; HBc, HBV core; BMI, body mass index; PV, portal vein; mUICC, modified Union for International Cancer Control; AFP, alpha-fetoprotein; OBI, occult HBV infection