

**Supplementary table 1 Comparison of patient characteristics according to MCP and ALBI grades, n (%)**

Variables	MCP grade			ALBI grade						
	1 (n = 110)	2 (n = 52)	3 (n = 42)	$\chi^2$	P value	1 (n = 136)	2 (n = 66)	3 (n = 2)	$\chi^2$	P value
Sex				6.389	0.038				2.051	0.424
Male	100 (90.9)	42 (80.8)	32 (76.2)			119 (87.5)	52 (80.3)	2 (100.0)		
Age, yr				2.116	0.364				1.934	0.414
> 50	51 (46.4)	30 (57.7)	23 (54.8)			65 (47.8)	38 (57.6)	1 (50.0)		
BMI, kg/m <sup>2</sup>				9.546	0.008				0.558	0.884
≥ 24	55 (50.0)	15 (28.8)	12 (28.6)			56 (41.2)	25 (37.9)	1 (50.0)		
Cause of hepatitis				7.817	0.106				6.262	0.213
HBV	93 (84.5)	46 (88.5)	35 (83.3)			119 (87.5)	54 (81.8)	1 (50.0)		
Prealbumin, mg/L				138.456	< 0.001				40.958	< 0.001
> 170	110 (100.0)	17 (32.7)	4 (9.5)			108 (79.4)	22 (33.3)	1 (50.0)		
Albumin, g/L				75.917	< 0.001				64.717	< 0.001
> 35	110 (100.0)	49 (94.2)	21 (50.0)			136 (100.0)	44 (66.7)	0 (0.0)		
Bilirubin, μmol/L				25.643	< 0.001				30.218	< 0.001
<51	110 (100.0)	52 (100.0)	34 (81.0)			136 (100)	60 (90.9)	0 (0.0)		
PT, s				33.645	< 0.001				24.885	< 0.001

≤ 14.5	101 (91.8)	35 (67.3)	21 (50.0)			119 (85.7)	37 (56.1)	1 (50.0)	
ALT, U/L				7.375	0.026				4.784 0.061
≤40	76 (69.1)	32 (61.5)	18 (45.2)			90 (66.2)	37 (56.1)	1 (50.0)	
AFP, ng/mL				2.751	0.263				0.676 0.888
< 400	76 (69.1)	34 (65.4)	23 (54.8)			90 (66.2)	42 (63.6)	1 (50.0)	
INR				5.926	0.060				9.245 0.012
< 1.3	108 (98.2)	51 (98.1)	38 (90.5)			134 (98.5)	62 (93.9)	1 (50.0)	
PLT, 10 <sup>9</sup> /L				0.400	0.824				0.560 0.848
≥ 100	82 (74.5)	28 (73.1)	33 (78.6)			103 (75.7)	48 (72.7)	1 (100.0)	
Child-Pugh grade				47.253	< 0.001				35.640 < 0.001
A	110 (100.0)	51 (98.1)	26 (69.1)			135 (99.3)	52 (78.8)	0 (0.0)	
Number of tumors				3.123	0.224				8.435 0.008
≥ 2	20 (18.2)	10 (19.2)	13 (31.0)			23 (16.9)	18 (27.3)	2 (100.0)	
Tumor size, cm				4.876	0.090				5.022 0.049
< 5	78 (70.9)	32 (61.5)	22 (52.4)			95 (69.9)	36 (54.5)	1 (50.0)	
Blood transfusion				6.337	0.045				8.945 0.006
Yes	36 (32.7)	12 (23.1)	20 (47.6)			37 (27.2)	29 (43.9)	2 (100.0)	
Surgical bleeding,				8.020	0.019				4.449 0.070

mL									
≤ 400	37 (33.6)	17 (32.4)	24 (57.1)			47 (34.6)	29 (43.9)	2 (100.0)	
Types of liver resection (Minor/Major)				4.537	0.110				8.549 0.011
Minor resection	87 (79.1)	44 (84.6)	28 (66.7)			112 (82.4)	47 (71.2)	0 (0.0)	
Intraoperative radiotherapy and/or chemotherapy				3.164	0.208				0.562 0.863
Yes	34 (30.9)	15 (28.8)	7 (16.7)			39 (28.7)	17 (25.8)	0 (0.0)	
PVTT (yes/no)				4.998	0.084				3.513 0.135
Yes	11 (10.0)	9 (17.3)	10 (23.8)			17 (12.5)	12 (18.2)	1 (50.0)	
Capsule formation (yes/no)				0.067	0.967				0.258 1
Yes	14 (12.7)	7 (13.5)	6 (14.3)			18 (13.2)	9 (13.6)	0 (0.0)	
Differentiation				1.774	0.414				1.781 0.423
Poor	63 (57.3)	31 (59.6)	29 (69.0)			50 (36.8)	30 (45.5)	1 (50.0)	

PH				3.856	0.153			2.595	0.225
Yes	20 (18.2)	16 (30.8)	12 (28.6)			28 (20.6)	20 (30.3)	0 (0.0)	
Liver cirrhosis (yes/no)				4.178	0.127			0.454	0.884
Yes	58 (52.7)	36 (69.2)	26 (61.9)			79 (58.1)	40 (60.6)	1 (50.0)	

BMI: body mass index; PH: portal hypertension; C-P: Child-Pugh; BCLC: Barcelona Clinic Liver Cancer; PVTT: portal vein tumour thrombus; MCP: modified Child-Pugh; ALBI: Albumin-Bilirubin; type of liver resection: minor  $\leq 3$  liver segments; major  $\geq 4$  liver segments; intraoperative radiotherapy: implanted with radiation particles I<sup>125</sup> or I<sup>131</sup>; intraoperative chemotherapy: implanted with a chemotherapy pump.