

Supplemental Table 1. Clinical characteristics of high-risk group and low-risk group.

Variable	All (N=127)	LRisk(n=98)	HRisk(n=29)	t/χ^2	p
Age, median (IQR), year	54.00 (48-62)	54.5(48-63)	53(34.5-61)	2.214	0.033
Gender				1.481	0.224
Male	113 (88.98%)	89(90.82%)	24(82.76%)		
Female	14 (11.02%)	9(9.18%)	5(17.24%)		
ECOG performance score				0.921	0.337
0	104 (81.89%)	82(83.67%)	22(75.86%)		
1	23 (18.11%)	16(16.33%)	7(24.14%)		
Blood type				0.013	0.910
non O-type blood	93 (73.23%)	72(73.47%)	21(72.41%)		
O-type blood	34 (26.77%)	26(26.53%)	8(27.59%)		
HBV				1.030	0.310
Absent	26 (20.47%)	22(22.45%)	4(13.79%)		
Present	101 (79.53%)	76(77.55%)	25(86.21%)		
Cirrhosis				1.445	0.229
Absent	62 (48.82%)	45(45.92%)	17(58.62%)		
Present	65 (51.18%)	53(54.08%)	12(41.38%)		
Child-Pugh class				2.730	0.099
5	40 (31.50%)	32(32.65%)	8(27.59%)		
6	50 (39.37%)	41(41.84%)	9(31.03%)		
7	37 (29.13%)	25(25.51%)	12(41.38%)		
AFP (IQR), ng/mL	229.6 (5.83-3021)	33.03(3.645-877.175)	29959(1123-60500)	5.126	<0.001
BCLC stage				2.375	0.123

B	81 (63.78%)	59(60.20%)	22(75.86%)		
C	46 (36.22%)	39(39.80%)	7(24.14%)		
Lymphatic metastasis				1.140	0.286
Absent	93 (73.23%)	74(75.51%)	19(65.52%)		
Present	34 (26.77%)	24(24.49%)	10(34.48%)		
MVI				24.318	<0.001
Absent	55 (43.31%)	54(55.10%)	1(3.45%)		
Present	72 (56.69%)	44(44.90%)	28(96.55%)		
PD-L1				45.458	<0.001
Absent	50 (39.37%)	23(23.47%)	27(93.10%)		
Present	77 (60.63%)	75(76.53%)	2(6.90%)		
TMB				14.899	<0.001
≥5 Mb	42 (33.07%)	41(41.84%)	1(3.45%)		
<5 Mb	85 (66.93%)	57(58.16%)	28(96.55%)		
<i>TERT</i>				40.786	<0.001
Absent	53 (41.73%)	26(26.53%)	27(93.10%)		
Present	74 (58.27%)	72(73.47%)	2(6.90%)		
<i>TP53</i>				29.926	<0.001
Absent	61 (48.03%)	60(61.22%)	1(3.45%)		
Present	66 (54.33%)	38(38.78%)	28(96.55%)		

Supplemental Table 2. The product name, dosage of ICIs.

ICIs	dosage
Tislelizumab	200mg, Q3w
Camrelizumab	200mg, Q3w
Sintilimab	200mg, Q3w
Toripalimab	240mg, Q3w
Pembrolizumab	200mg, Q3w
Atezolizumab	1200mg, Q3w
Cadonilimab	10mg/kg, Q3w
Durvalumab	1500mg, Q3w