

Baseline and Early Predictors of Good Patient Candidates for Second-Line after Sorafenib Treatment in Unresectable Hepatocellular Carcinoma

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Table S1. Backgrounds of patients by Child-Pugh score.

Variables	Child-Pugh Score 5 (<i>n</i> = 102)	Child-Pugh Score 6 (<i>n</i> = 88)	<i>p</i> Value
Age: years, mean ± SD	71 ± 9.3	72 ± 9.6	0.32
Male: <i>n</i> (%)	82 (80%)	67 (76%)	0.49
Maximum size of HCC nodule in the liver: mm, median (range in IQR)	35 (19–70)	45 (20–82)	0.15
Number of HCC nodules: 1/2–3/4 or more, <i>n</i> (%)	17 (17%)/21 (21%)/64 (62%)	11 (13%)/11 (13%)/66 (74%)	0.45
Tumor burden (Maximum size + Number of HCC nodules): mean ± SD	11 ± 6.2	13 ± 6.4	0.02
BCLC stage: B/C, <i>n</i> (%)	46 (45%)/56 (55%)	40 (45%)/48 (55%)	1.0
Presence of MVI: <i>n</i> (%)	22 (22%)	23 (26%)	0.50
Presence of metastasis: <i>n</i> (%)	45 (44%)	31 (35%)	0.24
Albumin: g/dl, mean ± SD	3.9 ± 0.32	3.2 ± 0.22	<0.001
Total bilirubin: g/dl, mean ± SD	0.83 ± 0.57	0.95 ± 0.46	0.12
Prothrombin time: %, mean ± SD	100 ± 16	94 ± 16	0.01
ALBI predictor, mean ± SD	−2.6 ± 0.32	−1.96 ± 0.24	<0.001
ALBI grade: 1/2, <i>n</i> (%)	50/52 (49/51%)	0/88 (0/100%)	<0.001
AFP: ng/ml, median (range in IQR)	82 (6.8–2480)	540 (32–4196)	0.007
PIVKA-II: mAU/ml, median (range in IQR)	209 (45–1350)	470 (61–4292)	0.09

AFP; alpha-fetoprotein, AFP L3 fraction; Lens culinaris agglutinin-reactive fraction of AFP, ALBI; albumin–bilirubin, BCLC; Barcelona Clinic Liver Cancer stage, HCC; hepatocellular carcinoma, IQR; Inter Quarter Range, MVI; major vascular invasion, PIVKA-II; prothrombin induced by vitamin K absence II, SD; standard deviation.

Table S2. Backgrounds of patients by ALBI grade.

Variables	ALBI Grade 1 (<i>n</i> = 50)	ALBI Grade 2 (<i>n</i> = 140)	<i>p</i> Value
Age: years, mean ± SD	70 ± 8.6	72 ± 9.7	0.11
Male: <i>n</i> (%)	42 (84%)	107 (76%)	0.32
Maximum size of HCC nodule in the liver: mm, median (range in IQR)	35 (19–70)	45 (20–82)	0.15
Number of HCC nodules: 1/2–3/4 or more, <i>n</i> (%)	17 (34%)/21 (42%)/12 (23%)	11 (8%)/11 (8%)/118 (84%)	0.45
Tumor burden (Maximum size + Number of HCC nodules): mean ± SD	9.9 ± 6.4	13 ± 6.2	0.005
BCLC stage: B/C, <i>n</i> (%)	21 (42%)/29 (58%)	65 (46%)/75 (54%)	0.62
Presence of MVI: <i>n</i> (%)	8 (16%)	37 (26%)	0.18
Presence of metastasis: <i>n</i> (%)	24 (48%)	52 (37%)	0.18
Albumin: g/dl, mean ± SD	4.1 ± 0.26	3.4 ± 0.32	<0.001
Total bilirubin: g/dl, mean ± SD	0.60 ± 0.18	0.99 ± 0.57	<0.001
Prothrombin time: %, mean ± SD	105 ± 13	95 ± 16	<0.001
ALBI predictor, mean ± SD	−2.9 ± 0.21	−2.1 ± 0.29	<0.001
AFP: ng/ml, median (range in IQR)	82 (6.8–2480)	540 (32–4196)	0.007
PIVKA-II: mAU/ml, median (range in IQR)	209 (45–1350)	470 (61–4292)	0.09

AFP; alpha-fetoprotein, AFP L3 fraction; Lens culinaris agglutinin-reactive fraction of AFP, ALBI; albumin–bilirubin, BCLC; Barcelona Clinic Liver Cancer stage, HCC; hepatocellular carcinoma, IQR; Inter Quarter Range, MVI; major vascular invasion, PIVKA-II; prothrombin induced by vitamin K absence II, SD; standard deviation.

Table S3. Sensitivity and Specificity to satisfy RESORCE criteria.

Baseline and Δ Albumin	Both Predictors Positive	Either or Both Predictors Positive
Sensitivity	29%	85%
Specificity	90%	37%
PPV	53%	36%
NPV	76%	86%
Baseline and Δ ALBI	Both Predictors Positive	Either or Both Predictors Positive
Sensitivity	47%	93%
Specificity	84%	36%
PPV	54%	37%
NPV	80%	92%

PPV; Positive Predictive Value, NPV; Positive Predictive Value, ALBI; albumin–bilirubin.

Table S4. Sensitivity and Specificity to satisfy RESORCE criteria plus Child-Pugh A5.

Baseline and Δ Albumin	Both Predictors Positive	Either or Both Predictors Positive
Sensitivity	33%	88%
Specificity	91%	42%
PPV	35%	18%
NPV	90%	96%
Baseline and Δ ALBI	Both Predictors Positive	Either or Both Predictors Positive
Sensitivity	63%	100%
Specificity	83%	36%
PPV	35%	18%
NPV	94%	100%

PPV; Positive Predictive Value, NPV; Positive Predictive Value, ALBI; albumin–bilirubin.

Table S5. Sensitivity and Specificity to satisfy RESORCE criteria plus ALBI grade 1.

Baseline and Δ Albumin, and Tumor Burden	Three Predictors Positive	Two or More Predictors Positive
Sensitivity	45%	91%
Specificity	97%	74%
PPV	45%	18%
NPV	97%	99%
Baseline and Δ ALBI, and Tumor Burden	Three Predictors Positive	Two or More Predictors Positive
Sensitivity	73%	91%
Specificity	97%	76%
PPV	62%	19%
NPV	98%	99%

PPV; Positive Predictive Value, NPV; Positive Predictive Value, ALBI; albumin–bilirubin.



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