

Supplementary Table 1 Baseline characteristics of all study participants, *n* (%)

Characteristics	Patients (<i>n</i> = 117)
Age (year), mean $\pm$ SD	58.79 $\pm$ 10.48
Age, < 65/ $\geq$ 65, years	79 (67.5)/38 (32.5)
Gender, male/female	106 (90.6)/11 (9.4)
Etiology, HBV/HCV/non-viral	106 (90.6)/2 (1.7)/9 (7.7)
ECOG-PS, 0/1	112 (95.7)/5 (4.3)
Child-Pugh class, A/B	97 (82.9)/20 (17.1)
Pre-treatment AFP, < 400/ $\geq$ 400, ng/mL	60 (51.3)/57 (48.7)
BCLC staging system, A/B/C	1 (0.9)/31 (26.5)/85 (72.6)
Vascular invasion, present/absent	82 (70.1)/35 (29.9)
Maximum tumor diameter (cm), mean $\pm$ SD	8.46 $\pm$ 3.57
Number of tumors, 1/2/3/ $\geq$ 4	33 (28.2)/17 (14.5)/15 (12.8)/52 (44.4)

SD: Standard deviation; HBV: Hepatitis B virus; HCV: Hepatitis C virus; ECOG-PS: Eastern Cooperative Oncology Group Performance Status; Child-Pugh: Child-Pugh score; AFP: Alpha-fetoprotein; BCLC: Barcelona Clinic Liver Cancer.

**Supplementary Table 2 Postoperative complications varied between patients
undergoing different surgical procedures**

Type of surgical resection		Liver failure	Abdominal fluid	Biliary leakage	Abdominal infection	Abdominal bleeding	Pleural effusion
Right hemihepatectomy		No	Yes	No	No	No	No
Lumpectomy hemi liver + microwave ablation.	left	No	No	No	No	No	No
Partial hepatectomy + microwave ablation		No	No	No	No	No	No
Right hemihepatic + caudate lobectomy		No	No	No	No	No	Yes
Left hepatic trilobate + portal vein dissection for thrombus extraction		Yes	Yes	No	Yes	No	Yes
Partial hepatectomy		No	No	No	No	No	No
Partial hepatectomy		No	No	Yes	No	No	Yes
Partial hepatectomy		No	Yes	No	No	No	Yes

Partial hepatectomy + microwave ablation	No	No	No	No	No	No
Partial hepatectomy	No	Yes	No	Yes	No	No
Right hemihepatectomy	Yes	No	No	No	No	No
Partial hepatectomy	No	Yes	Yes	No	Yes	No
Partial hepatectomy	No	No	No	No	No	Yes
Right hemihepatectomy	No	No	No	No	No	No
Right hemihepatectomy	Yes	Yes	No	No	No	Yes
Lumpectomy right hemiliver	No	Yes	No	Yes	No	Yes
Right hemihepatectomy	No	Yes	No	No	No	Yes
Right hemihepatectomy	No	No	No	No	No	No
Right hemihepatectomy	No	Yes	No	Yes	No	Yes
Right hemihepatectomy + inferior vena cava thrombectomy	No	Yes	No	Yes	No	No

Right hemi-liver + microwave curing	Yes	Yes	No	No	No	Yes
Hepatic segment IV and V resection	No	No	Yes	No	No	Yes
Right hemihepatectomy + portal vein thrombus removal	Yes	Yes	Yes	Yes	No	Yes
Left hemihepatectomy	No	No	No	No	No	Yes
Hepatic VII resection	No	No	No	No	No	No
Right hemi-liver + hilar lymph node dissection	Yes	Yes	No	Yes	No	Yes
Partial hepatectomy	No	No	No	No	No	No
Partial hepatectomy	No	No	No	No	No	Yes
