

SUPPLEMENTARY FILE

Table S1. Dose constraints used

OAR	Constraint
Normal liver	Mean liver dose < 15–17 Gy and D800 cc < 14 Gy
Stomach, duodenum, esophagus, small bowel	0.5cc < 30 Gy
Large bowel	0.5 cc < 32 Gy
Cord PRV	0.5 cc < 25 Gy
Skin	0.5 cc < 30 Gy
Rib	0.5 cc < 50 Gy
Gall bladder	0.5 cc < 50 Gy

OAR — organ at risk; PRV — planning organ at risk volumes

Table S2. Tumor and treatment characteristics

Treatment characteristic	Median/mean (range)
Largest diameter [cm]	8.6 (5–14)
GTV [cc]	275 (75–930)
PTV [cc]	498 (151–1196)
Normal liver volume [cc]	1298 (933–1996)
BED median [Gy]	80 (57.6–100)
Mean PTV BED dose [Gy]	86.4 (60.4–108)
Mean dose normal liver [Gy]	13.6 (6–17)
Mean dose to 700 cc liver [Gy]	7.8
PreSBRT AFP (average)	8159 (2.63–657485)
Post SBRT AFP(3 months)	2017
Pre SBRT PIVKA (Average)	30979
Post SBRT PIVKA (Average)	4161
Follow-up [months]	6 (1–20)

GTV — gross tumor volume; PTV planning target volume; BED — biological effective dose; AFP — alpha-fetoprotein; PIVKA — protein induced by vitamin K absence; stereotactic body radiation therapy

Table S3. Cox regression results supplementary

S.No	Factor	HR-PFS	95% CI	p-value
1	Sex	13.42	(0.81–221.02)	0.069
2	ECOG	0.48	(0.11–2.07)	0.325
3	BCLC	0.65	(0.08–5.46)	0.689
4	PVTT	0.65	(0.08–5.46)	0.689
5	Child	0.88	(0.21–3.70)	0.863
6	Diabetes	1.25	(0.31–5.03)	0.755
7	Age	0.95	(0.90–1.02)	0.139
8	Total BED	2.55	(0.49–13.39)	0.268
9	Tumor diameter	1.30	(0.99–1.71)	0.062
10	GTV	4.78	(1.06–21.61)	0.042
11	PTV	6.21	(0.74–51.76)	0.092
12	Spleen mean dose	3.74	(0.82–17.04)	0.089

HR — hazard ratio; PFS — progression-free survival; CI — confidence interval; ECOG — Eastern Co-operative Oncology Group; BCLC — Barcelona Clinic Liver cancer staging; PVTT — portal vein tumor thrombosis; BED — biological effective dose; GTV — gross tumor volume; PTV planning target volume

Table S4. Radiological and biochemical response [assessed by by Modified Response Evaluation Criteria in Solid Tumors (mRECIST) using contrast magnetic resonance imaging (MRI) or positron-emission tomography-computed tomography (PET-CT)]

Radiological Response	One month (patients/total) (%)	Three months (patients/total) (%)
CR	0/29 (0)	13/29 (45)
PR	20/29 (68)	13/29 (45)
SD	8/29 (27.5)	2/29 (7)
PD	1/29 (3.5)	1/29 (3.5)
Biochemical response		
> 50% decrease in tumor marker from baseline	21/29 (72.5)	23/29 (80)

< 50% decrease in tumor marker from baseline	8/29 (27.5)	6/29 (20)
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CR — complete response; PR — partial response; SD — stable disease; PD — progressive disease

Figure S1. A patient set up with an abdomen and chest compression pre-SRBT

