Article

Supplementary materials: Clinical effect of lenvatinib re-administration after transcatheter arterial chemoembolization in patients with intermediate stage hepatocellular carcinoma

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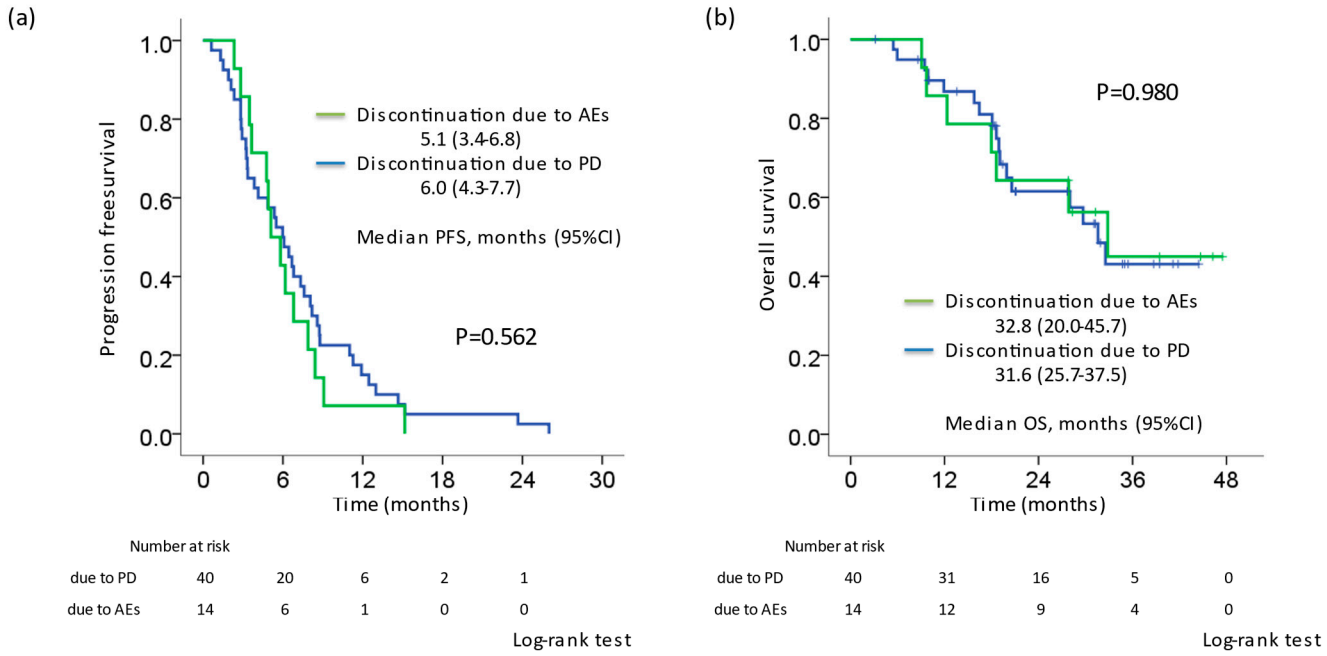

Figure S1: Kaplan–Meier curve of the overall survival (OS) and progression-free survival (PFS) according to the reasons for discontinuation. (a) The PFS from the first initiation of LEN. (b) The OS from the first initiation of LEN. There was no significant difference between the rate of dis-continuation due to AEs and that due to PD.
LEN, lenvatinib; AEs, adverse events; PD, progression disease;

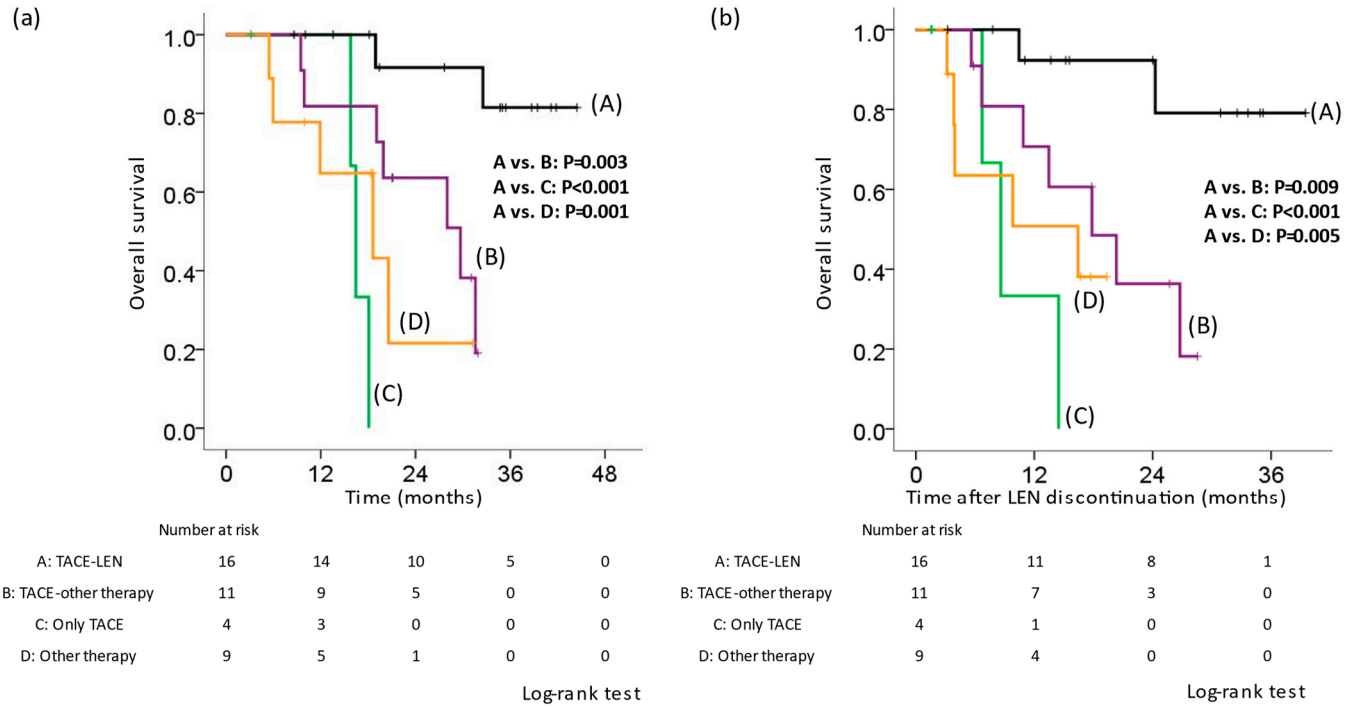

Figure S2: Kaplan–Meier curve of the overall survival (OS) according to post-treatment in cases in which LEN was discontinued due to disease progression. (a) The OS from the first initiation of LEN. The Kaplan–Meier curve for the OS showed that group A had a better prognosis than groups B, C, and D. (b) The OS from the discontinuation of LEN. The Kaplan–Meier curve for the OS showed that group A had a better prognosis than groups B, C, and D.

LEN, lenvatinib;

Table S1. The reason of discontinuation of Lenvatinib

	ALL n=85	**A: TACE-LEN n=19**	**B: TACE-other therapy* n=19**	**C：only TACE n=13**	**D：Other therapy* n=11**	**E: resection, RFA n=3**	**F: none n=20**	**P value**
disease progression	55	17	13	7	10	1	7	0.073**
Adverse events	29	2	6	6	1	2	12	
deterioration of liver function	8	0	1	1	0	0	6	
gastrointestinal symptoms (including gastrointestinal bleeding)	8	0	1	4	1	0	2	
general malaise	4	1	2	0	0	0	1	
respiratory disease	3	0	1	1	0	1	0	
Others***	6	1	1	0	0	1	3	

One case was discontinued due to achieving CR.

*Other therapies such as Sorafenib, regorafenib, ramucirumab, cabozantinib, and atezolizumab + bevacizumab.

**A. vs. B, C, and D. (non-TACE-LEN).

*** portal vein thrombus (n=1), cerebral hemorrhage (n=1), and thrombocytopenia (n=1), and the exacerbation of pre-existing illness (n=3).

Table S2. Characteristics of post-treatment in patients for whom lenvatinib therapy was discontinued

Characteristics	A：TACE-LEN n=18	B：TACE-other therapy* n=17	C：only TACE n=9	D：Other therapy* n=10	P value
Age, years	71.0±9.2	71.3±7.8	71.9±11.6	73.3±11.2	0.760
Sex, Male/Female	13/5	13/4	9/0	7/3	0.353
mALBI before therapy, 1/ 2a/ 2b/ 3	8/ 4/ 6/ 0	7/ 5/ 5/ 0	2/ 1/ 6/ 0	2/ 5/ 3/ 0	0.303
mALBI at EOT, 1/ 2a/ 2b/ 3	4/ 5/ 9/ 0	5/ 6/ 5/ 1	3/ 2/ 3/ 1	5/ 3/ 1/ 1	0.631
Maximum tumor diameter, mm	44.3±31.5	38.5±18.9	39.8±27.7	35.2±14.5	0.980
Number of tumors 0-3/ 4-6/ 7-	3/ 10/ 5	6/ 7/ 4	0/ 4/ 5	1/ 5/ 4	0.302
Up-to-seven in/out	4/ 14	4/ 13	1/ 8	2/ 8	0.892
Number of TACE treatments before LEN initiation, times	2.3±2.0	3.4±2.9	4.4±3.2	4.2±3.5	0.149
Platelet count (×10⁴/μL)	12.8±5.2	16.3±6.2	19.5±11.0	16.9±5.0	0.107
AFP (ng/mL)	181±444	117±300	95±223	350±673	0.475
DCP (mAU/mL)	2263±7345	510±966	346±541	503±749	0.904
Start with a reduced amount, n (%)	9 (50.0)	7 (41.2)	7 (77.8)	4 (40.0)	0.295
Duration of LEN administration, days (post therapy)	236.8±148.1 (331.9±257.6)	171.1±116.9	131.0±104.7	147.9±114.7	0.081
ORR, %	61.1	35.3	11.1	40.0	0.087
DCR, %	94.4	94.1	66.7	80.0	0.146
Discontinuation due to adverse events, %	11.1	35.3	55.6	10.0	0.041
Use of atezolizumab + bevacizumab, n (%)	8 (44.4)	13 (76.5)	0 (0)	5 (50.0)	0.003

Mean ± standard deviation

*Other therapies such as sorafenib, regorafenib, ramucirumab, cabozantinib, and atezolizumab + bevacizumab.

TACE, transcatheter arterial chemoembolization; LEN, lenvatinib; RFA, radiofrequency ablation; mALBI, modified albumin bilirubin score; AFP, alfa-fetoprotein; DCP, des-gamma carboxyprothrombin; ORR, objective response rate; DCR, disease control rate.