

**Adjuvant Lenvatinib in Combination with Transarterial Chemoembolization for
Hepatocellular Carcinoma Patients with High-Risk of Postoperative Recurrence
(LANCE): A Multicenter Prospective Cohort Study**

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Fig.S1. Risk factors for DFS in patients receiving adjuvant TACE in HCC patients database

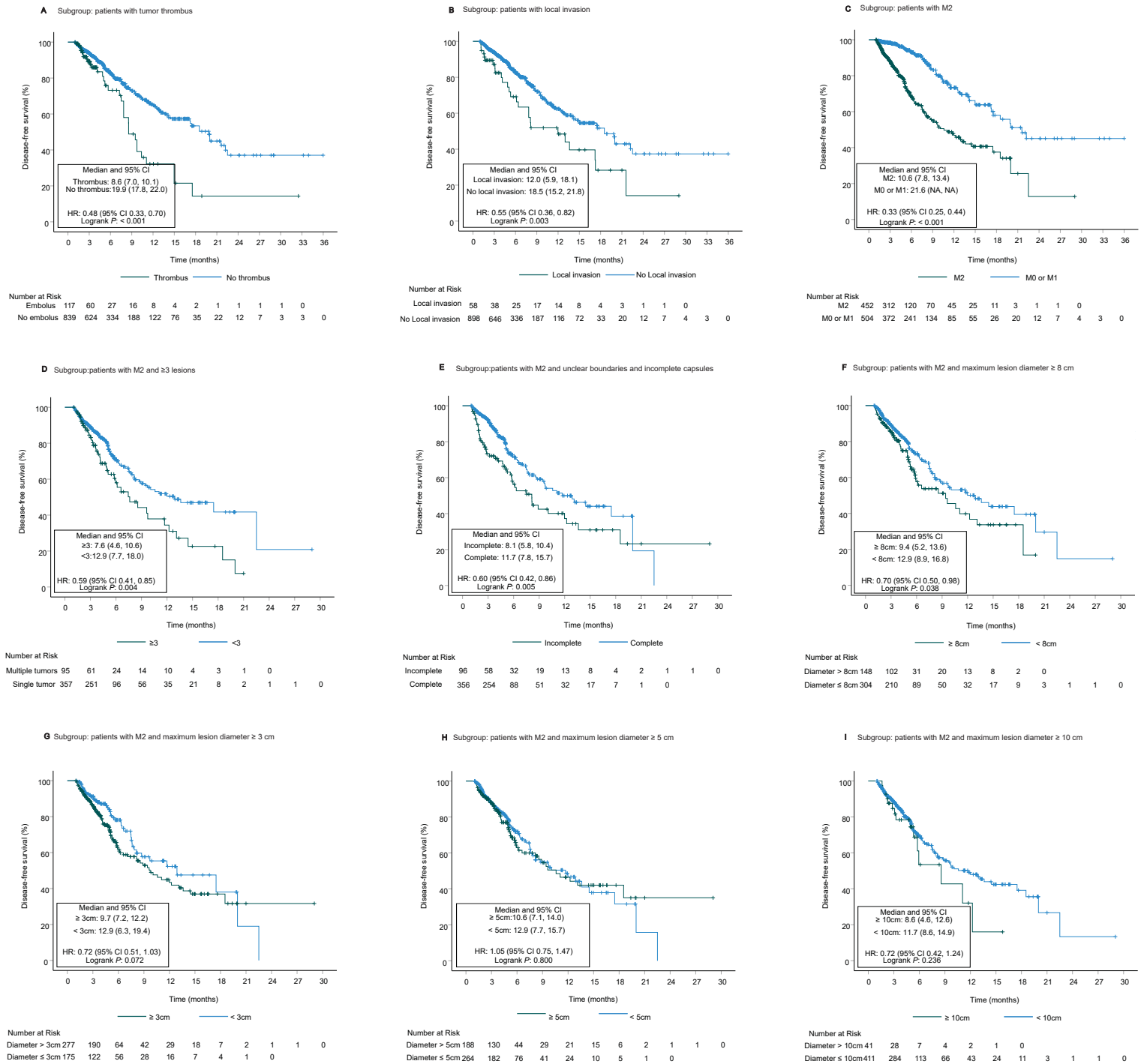


Fig.S2. Risk factors for OS in patients receiving adjuvant TACE in HCC patients database

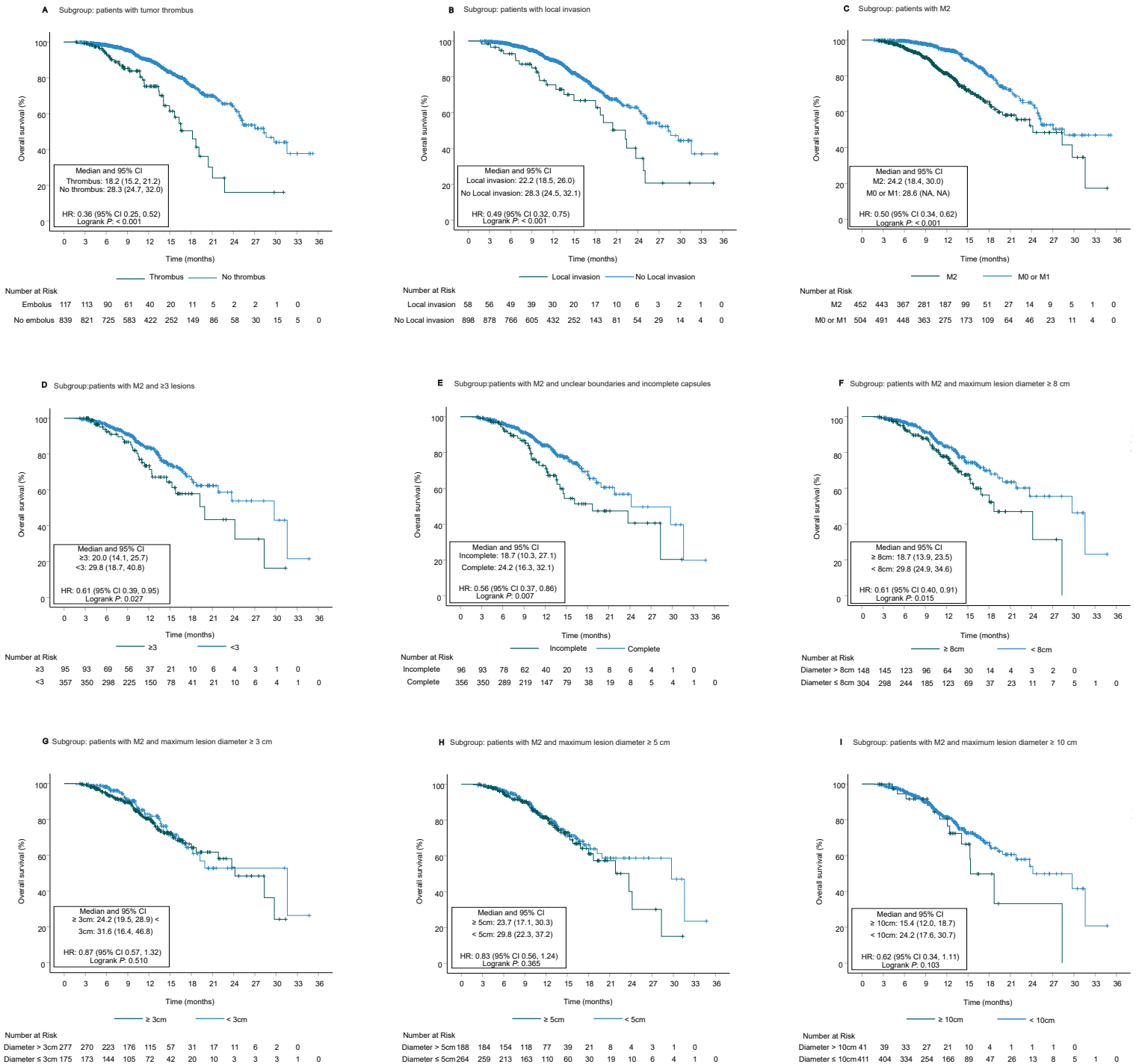


Fig.S3. DFS and OS in HCC patients with risk factors identified receiving adjuvant TACE

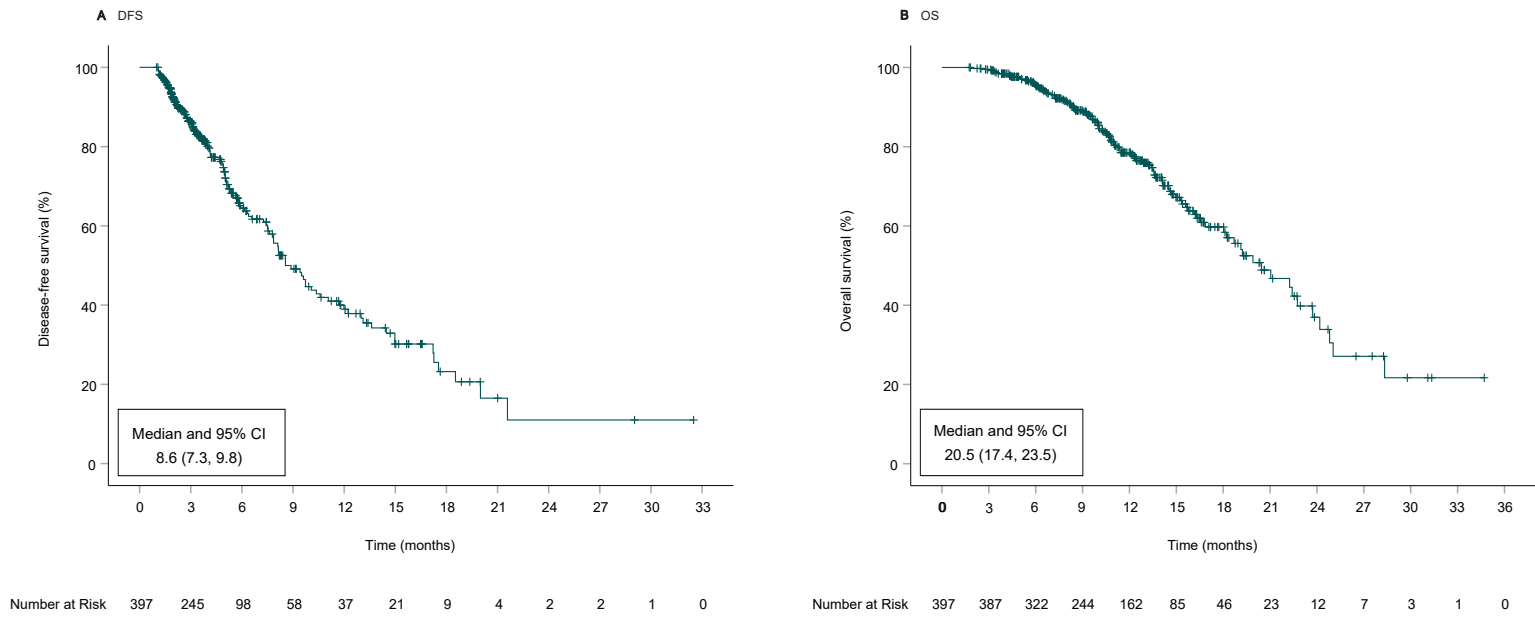


Figure legends Fig.S1-S3

The risk factors for DFS and OS in patients receiving adjuvant TACE were identified from the database involved 956 HCC patients in Huashan hospital from Jan 2015 to Dec 2017 (Supplementary figure 1-3).

Fig.S1. Risk factors for DFS in patients receiving adjuvant TACE from the database. The DFS was significantly poorer in patients with tumor thrombus (1A), local invasion (1B) and MVI M2 (1C) compared with patients without these factors when receiving adjuvant TACE. Among patients with MVI M2, ≥ 3 lesions (1D), unclear boundaries and incomplete capsules (1E), and maximum lesion diameter ≥ 8 cm (1F) were further identified as risk factors strongly associated with poor DFS. Different cutoff values of maximum lesion diameter in patients with MVI M2 were also evaluated. We found that the cutoff of 8 cm was an optimal predictive factor of DFS rather than 3cm, 5cm and 10cm (1G-I).

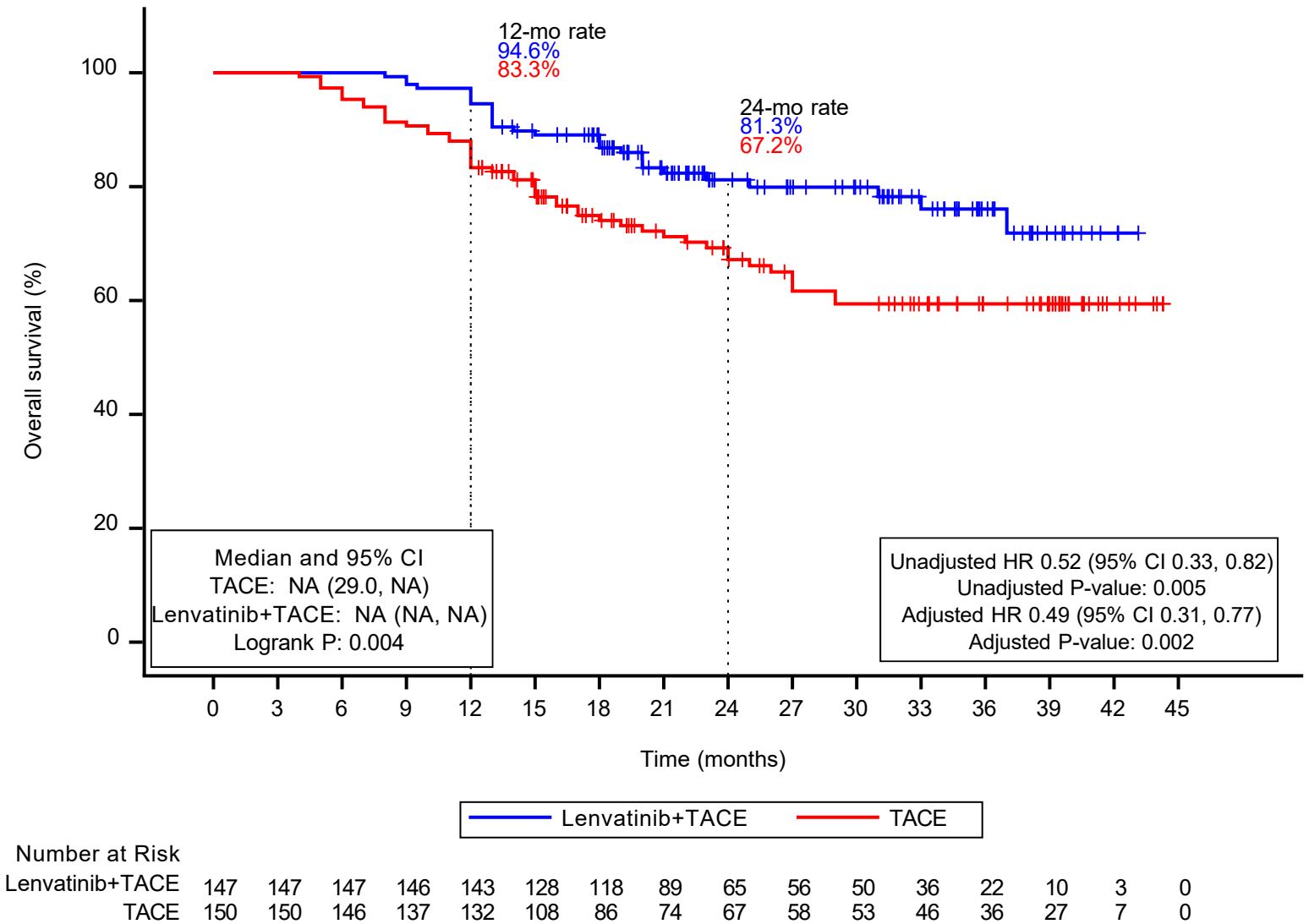
Fig.S2. Risk factors for OS in patients receiving adjuvant TACE from the database. The identified risk factors for OS were consistent with that for DFS. Patients with tumor thrombus (1A), local invasion (1B), MVI M2 (1C) with any of the following situations: ≥ 3 lesions (1D), or unclear boundaries and incomplete capsules (1E), or maximum lesion diameter ≥ 8 cm (1F) showed significantly shorter overall survival than patients without these factors or other factors (1G-I) from TACE treatment in the adjuvant setting.

Fig.S3.DFS and OS in HCC patients with risk factors identified receiving adjuvant TACE. There were 397 patients with any of risk factors identified above in total from the database. The DFS was 8.6 months (95% CI, 7.3-9.8) and the OS was 20.5 months (95% CI, 17.4-23.5) in the defined population.

These results suggested that limited benefit from adjuvant TACE could be provided for patients with these risk factors. This population needed to receive more intensive treatment after surgery. Therefore, these factors were used to select the patients with high-risk of recurrence in the current LANCE study.

Local invasion was defined as tumor rupture or invasion of adjacent organs.
M0, microvascular invasion classification 0; M1, microvascular invasion classification 1; M2, microvascular invasion classification 2.

Fig.S4. Overall survival in the TACE+Len and TACE groups



Note: Adjusted for Tumor thrombus, Local invasion, M2+, ALBI, Gender, Age $\geq$ 55, HBV, AFP before operation $\geq$ 200 ng/mL.

Fig.S5. Forests plot of subgroup analysis of overall survival

