

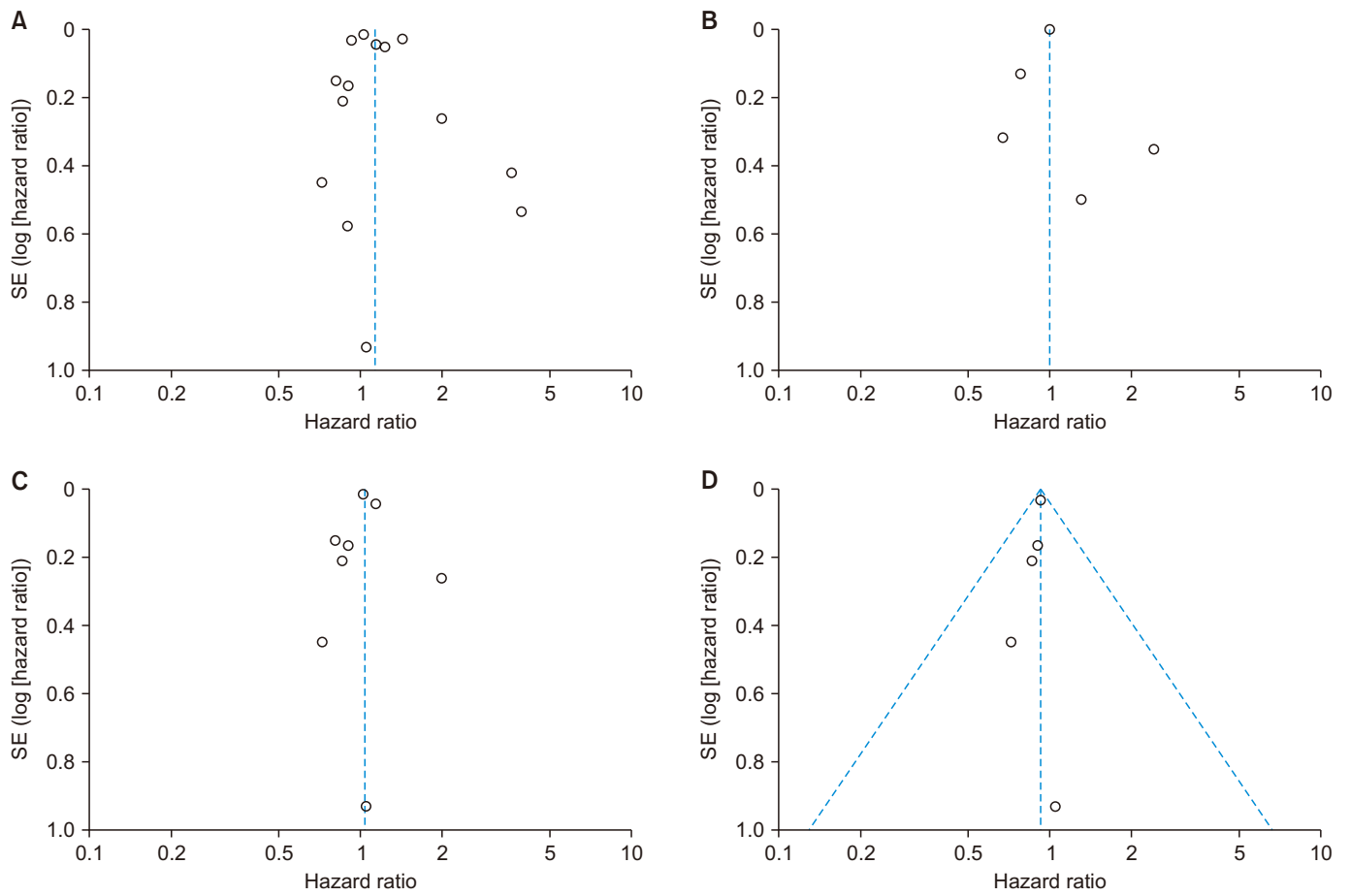
Supplementary Table 1. Search strategy used in the various databases

| Database | Search terms |
|----------------------|--|
| PubMed | ((liver cancer[MeSH Terms]) OR ((hepatocellular carcinoma[MeSH Terms]) OR (liver cell carcinoma, adult[MeSH Terms])) OR hepatocellular carcinoma) AND ((treatment delay[MeSH Terms]) OR (time to treatment[MeSH Terms]) OR treatment timing OR delayed treatment OR waiting time) |
| Embase | ('liver cell carcinoma'/exp) AND (('time to treatment'/exp) OR ('therapy delay'/exp)) |
| Scopus | TITLE-ABS-KEY (("hepatocellular carcinoma" OR "liver cell carcinoma" OR "HCC" OR "liver cell cancer") AND ("time to treatment" OR "delayed treatment" OR "treatment delay")) |
| The Cochrane Library | ((MeSH descriptor: [Carcinoma, Hepatocellular] explode all trees) OR ("hepatocellular carcinoma" OR 'liver cell carcinoma' OR 'HCC'):ti,ab,kw) OR ((MeSH descriptor: [Time-to-Treatment] explode all trees) OR ('treatment delay' OR 'delayed treatment' OR 'time interval' OR 'treatment timing'):ti,ab,kw) |

Supplementary Table 2. Modified Newcastle–Ottawa score of all included studies

| First author | Selection | | | Demonstration that outcome of interest was not present at start of study | Comparability | Outcome | | | Total ^{a)} |
|------------------------|--------------------------------------|---------------------------------|---------------------------|--|---|-------------------------|---|----------------------------------|---------------------|
| | Representativeness of exposed cohort | Selection of non-exposed cohort | Ascertainment of exposure | | Comparability of cohorts based on basis of design or analysis | Assessments of outcomes | Was follow-up long enough for outcomes to occur | Adequacy of follow-up of cohorts | |
| Xu et al. [3] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 8 |
| Wagle et al. [13] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| Tsilimigras et al. [5] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 8 |
| Tsai et al. [15] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| Singal et al. [22] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 7 |
| Rao et al. [6] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 7 |
| Ong et al. [19] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 |
| Lim et al. [18] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Kabir et al. [4] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Huo et al. [17] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| He et al. [16] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 6 |
| Govalan et al. [7] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 8 |
| Chen et al. [21] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 7 |
| Brahmania et al. [20] | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |

^{a)}Quality score of < 3: low quality of evidence, 3–6: moderate quality of evidence, ≥ 7: high quality of evidence.



Supplementary Fig. 1. Funnel plots of the included studies (A) OS, (B) disease-free survival, (C) OS in subgroup of patients with time-to-treatment cut-off defined as 90 d, and (D) OS within subgroup of patients who received liver resection only. OS, overall survival; SE, standard error.