



Supplement for the paper titled: “Laparoscopic liver resection: a review of current indications and surgical techniques”

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After the Original Review entitled “Laparoscopic liver resection: a review of current indications and surgical techniques” (1) was accepted for publication in February, 2018 by HBSN, several important studies were published to update the advances in laparoscopic liver resection (LLR). Fretland *et al.* (2) conducted a randomized controlled trial to compare laparoscopic and open liver resection (OLR) for colorectal liver metastasis, which might be the first accomplished large-scale RCT on LLR. A total of 280 patients were included, among whom 133 patients received LLR while others received open procedure. LLR was found to be associated with less postoperative complications and more cost-effective, while the rate of free resection margins did not significantly differ. This provides high level and encouraging evidence to support LLR implementation.

Other RCTs may also provide vital evidence concerning LLR. Among 36 registered RCTs related to LLR on Clinical Trials, 29 include therapeutic evaluation, 3 include oncological outcomes, 5 are multi-centered and 19 are about certain kinds of diseases [among which 9 concern hepatocellular carcinoma (HCC), 6 concern colon/rectum liver metastasis, 2 concern hepatolithiasis and 1 concern giant cavernous hemangiomas].

Additionally, some small capacity RCTs also shouldn't be omitted. El-Gendi *et al.* (3) compared 25 patients who received LLR with an equivalent group of OLR patients in the treatment of solitary small peripheral HCC, suggesting that LLR is superior to the OLR with significantly shorter duration of hospital stay while not attenuating oncological outcomes. Regardless of its small sample capacity, it could

still enlighten further researches.

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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