

PEER-REVIEW REPORT

Name of journal: World Journal of Gastrointestinal Surgery

Manuscript NO: 63008

Title: Liver resection for hepatocellular carcinoma larger than 10cm: a multi-institution long-term observational study

Reviewer's code: 03756593

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Canada

Author's Country/Territory: Taiwan

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|---------------------------------|---|
| Scientific quality | <input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish |
| Language quality | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection |
| Conclusion | <input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection |
| Re-review | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Peer-reviewer statements | Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

SPECIFIC COMMENTS TO AUTHORS

The authors present the largest cohort to date of patients with HCC > 10cm diameter undergoing resection for cure and compares with patients from the same cohort who underwent TACE at the same group of 7 hospitals. 426 resected patients with tumors > 10 cm were compared to 361 similar patients treated with TACE. The resection group had superior overall and disease free survival at 1,3 and 5 years and lower 30 and 90 day mortality. The major challenge with this most important part of the paper is that the groups were not randomly selected for the different treatments but the authors have not clearly outlined why resection vs TACE was selected for particular patient groups, although they give enough data to clearly show that the groups were not the same. TACE patients were older, more advanced in staging by both AJCC and BCLC, and had poorer biochemistry. While they applied the IPTW to correct for differences in liver function and other discrepant characteristics, they should address the significant weakness of comparing apples and oranges. In the end, they demonstrate that surgical resection is preferable if it can be accomplished, but have not given much insight into which patients they would consider for resection. Of interest, they document that resection was superior even in BCLC stage B patients. They also suggest a new category of stage T1 to recognize that the outcomes in these very large tumors are poorer. The other two analyses look at outcomes with resection of tumors < 10 cm vs > 10 cm and present a substantial number of outcomes that are very much as would be expected: smaller tumors had lower operative mortality, and better 5 year overall and disease free survival. The last analysis looks at outcomes in the recent era as compared to an earlier cohort and again no real surprises as they demonstrate lower mortality and better outcomes in recent years.