

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Oncology*

Manuscript NO: 65803

Title: Immunotherapy in liver transplantation for hepatocellular carcinoma: Pros and cons

Provenance and peer review: Invited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05497413

Position: Peer Reviewer

Academic degree: PhD

Professional title: Academic Research

Reviewer's Country/Territory: New Zealand

Author's Country/Territory: China

Manuscript submission date: 2021-03-22

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-08 07:35

Reviewer performed review: 2021-04-11 16:11

Review time: 3 Days and 8 Hours

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 Grade E: Do not publish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 type="checkbox"/> Minor revision <input checked="" 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="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

In this review, Yi et al. comprehensively summarize the available evidence of immunotherapy used in LT that is specific to HCC. Moreover, Yi et al. discuss clinically concerning issues regarding the concurrent goals of graft protection and antitumor response. I have some major concerns as following. Major comments

- In the introduction, the author mentioned three immunotherapies, but the introduction of vaccine therapy and adoptive cell transfer (ACT) is insufficient and needs to be supplemented.
- There is very little description of vaccine therapy in the article.
- Systematic interrogation of tumor-infiltrating lymphocytes is key to the development of immunotherapies and the prediction of their clinical responses in cancers. This needs to be discussed.
- Immune-checkpoint inhibitors are now being incorporated into the HCC treatment armamentarium and combinations of molecularly targeted therapies with immunotherapies are emerging as tools to boost the immune response. Therefore, it is necessary to focus on this part of the discussion (molecularly targeted therapies with immunotherapies).
- The title of the paper is 《Immunotherapy in liver transplantation for hepatocellular carcinoma: pros and cons》, but the conclusion does not highlight the main point of the paper.