

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 86596

Title: Expression characteristics of peripheral lymphocyte programmed death 1 and Fox + Tregs in gastric cancer during surgery and chemotherapy

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 07746175

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Doctor

Reviewer's Country/Territory: Japan

Author's Country/Territory: China

Manuscript submission date: 2023-08-07

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-08-09 09:09

Reviewer performed review: 2023-08-18 09:56

Review time: 9 Days

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
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 checked="" type="checkbox"/> Yes <input 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 used clinical data and samples to study the changes of peripheral Lymphocyte PD-1 and FoxP3+ Tregs in gastric cancer before and after surgery and/or chemotherapy. After reasonable comparing the PD-1 expression and number of FoxP3+ Tregs in tumor patients and healthy donors, as well as at different stage during surgery and chemotherapy, the authors showed that the population of regulatory T cells was higher in the patients compared to the donors, which was similar to previous reports investigating prostate, lung, pancreatic and breast cancer. This result also provides a theoretical basis for the treatment of tumors with PD-1/PDL-1 blockers in combination with chemotherapy drugs. In short, the topic of this manuscript is timely and interesting. The authors have organized the manuscript rationally, with good methodology and well-written English. However, some important editing needs to be done before publication: 1) In this paper, one question has confused me. Why did the author simultaneously study the expression characteristics of peripheral Lymphocyte PD-1 and FoxP3+ Tregs in gastric cancer? What is internal connection of PD-1 and FoxP3+ Tregs? 2) The authors have provided detailed and accurate data on the changes of PD-1

expression and number of FoxP3+ Tregs in tumor patients at different stage during surgery and chemotherapy. So, what are or may be the novel insights for future investigations into tumour immune evasion and the clinical application of anti-PD-1 antibodies in gastric cancer? The author can daringly provide their perspectives.

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Title: Expression characteristics of peripheral lymphocyte programmed death 1 and Fox + Tregs in gastric cancer during surgery and chemotherapy

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 07746267

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Associate Professor

Reviewer's Country/Territory: South Korea

Author's Country/Territory: China

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Reviewer accepted review: 2023-08-11 01:24

Reviewer performed review: 2023-08-21 08:17

Review time: 10 Days and 6 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
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
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Re-review	<input checked="" type="checkbox"/> Yes <input 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

Recently, tumor immunotherapy has become a field of advanced research with the advances of CAR-T-cells, genetically engineered T cells, CTLA-4, and the PD-1/PD-L pathway. However, the curative effects of tumor immunotherapy are often questioned, and the course of immunotherapy not fully understood. In this study, the authors aimed at evaluating the expression characteristics of peripheral Lymphocyte PD-1 and FoxP3+ Tregs in gastric cancer during surgery and chemotherapy to offer novel insights for future investigations into tumour immune evasion and the clinical application. The authors used primary clinical data, Flow cytometry analysis, and statistical analysis to verify their hypothesis. The results showed that significant increase of PD-1 expression on immune subsets and a larger number of FoxP3+ Tregs were observed in gastric cancer patients compared with healthy donors, which decreased after D2 gastrectomy notably. This phenomenon has never been observed before. So, in my opinion, this paper is well-written. The experiment design is reasonable, and the results reflects the conclusion as well. I recommend its acceptance after the minor revision. The detailed comments are: 1. In fig 1, we can see the significant increase of PD-1 expression on



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immune subsets and a larger number of FoxP3+ Tregs of patient compared with that of donors. And Fig 2 showed significant decrease of PD-1 expression on immune subsets of patients. I wonder what is the difference of PD-1 expression on immune subsets between patients and donors after D2 gastrectomy? 2. Several typo and grammar issues should be solved. For example, In the Flow cytometry analysis part, permeabilising should be permeabilizing.