

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 68336

Title: The dualistic role of platelets in living donor liver transplantation: Are they harmful?

Reviewer's code: 05562744

Position: Editorial Board

Academic degree: FACS, MD, PhD

Professional title: Professor, Senior Scientist

Reviewer's Country/Territory: Turkey

Author's Country/Territory: Japan

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Reviewer chosen by: Li Ma

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] Grade E: Do not publish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

SPECIFIC COMMENTS TO AUTHORS

Evaluation of the manuscript titled “The dualistic role of platelets in living donor liver transplantation: Are they harmful?” Manuscript No: 68336 Brief: The authors have made a detailed review on the effects of thrombocytes on ischemia and reperfusion injury and liver regeneration in living donor liver transplantation. General evaluation of the sections of the manuscript: Introduction: It is very well written, and it is right to the point. I would suggest adding a few points about the donors as well. Because, in LDLT donors are also at risk of small for size which causes significant morbidity. The manuscript addressed important points in terms of liver regeneration in LDLT. I generally found the manuscript very satisfying. I believe it will have a significant contribution to the literature.

RESPONSE TO REVIEWER

Thank you very much for providing us with the opportunity to submit a revised version of our manuscript. We appreciate your excellent comments on our manuscript. We changed the contents following your comments.

Comment

I would suggest adding a few points about the donors as well. Because, in LDLT donors are also at risk of small for size which causes significant morbidity.

Response

=> Living donor hepatectomy is sometimes associated with postoperative complications leading to posthepatectomy liver failure. Previous studies reported that the morbidity rates in liver donors ranged from 8.3% to 78.3% [1, 2]. The remnant liver

volume ratio, which was recommended to exceed the minimum of 30–35% for donor safety [3], is closely related to postoperative morbidity such as liver failure, and platelets have been highlighted as playing an important role in this condition. Yoshino et al. retrospectively collected data from 254 donors undergoing LDLT and showed that a lower preoperative platelet count was an independent risk factor for postoperative complications, such as bile leakage, subphrenic effusion, infectious ascites, postoperative anemia, and liver failure, after living donor hepatectomy [4]. Emond et al. demonstrated that even in healthy donors, the fluctuation of platelet count within the normal range was negatively associated with potential portal hypertension and subclinical liver dysfunction, indicating that the platelet count might serve as a surrogate marker to predict potential liver failure in healthy donors [5].

We added these contents in the part “Platelets and LDLT” of the revised manuscript.

- 1 Lei J, Yan L, Wang W. Donor safety in living donor liver transplantation: a single-center analysis of 300 cases. *PloS one* 2013; 8(4): e61769 [PMID: 23637904 PMCID: PMC3636234 DOI: 10.1371/journal.pone.0061769]
- 2 Kim SH, Kim YK. Improving outcomes of living-donor right hepatectomy. *The British journal of surgery* 2013; 100(4): 528-534 [PMID: 23288584 DOI: 10.1002/bjs.9022]
- 3 Miller CM, Durand F, Heimbach JK, Kim-Schluger L, Lee SG, Lerut J, Lo CM, Quintini C, Pomfret EA. The International Liver Transplant Society Guideline on Living Liver Donation. *Transplantation* 2016; 100(6): 1238-1243 [PMID: 27120453 DOI: 10.1097/tp.0000000000001247]
- 4 Yoshino K, Taura K, Ikeno Y, Okuda Y, Nishio T, Yamamoto G, Seo S, Yagi S, Hata K, Kaido T, Okajima H, Uemoto S. Low Preoperative Platelet Count Predicts Risk of Subclinical Posthepatectomy Liver Failure in Right Lobe Donors for Liver Transplantation. *Liver Transpl* 2018; 24(9): 1178-1185 [PMID: 29679437 DOI: 10.1002/lt.25181]
- 5 Emond JC, Fisher RA, Everson G, Samstein B, Pomposelli JJ, Zhao B, Forney S, Olthoff KM, Baker TB, Gillespie BW, Merion RM. Changes in liver and spleen volumes after living liver donation: a report from the Adult-to-Adult Living Donor Liver Transplantation Cohort Study (A2ALL). *Liver Transpl* 2015; 21(2): 151-161 [PMID: 25488878 PMCID: PMC4308432 DOI: 10.1002/lt.24062]



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At last, thank you for your arduous work and instructive advice.