



PEER-REVIEW REPORT

Name of journal: *World Journal of Hepatology*

Manuscript NO: 75467

Title: Volumetric assessment of hepatic grafts using a Light Detection And Ranging system for 3D scanning: preliminary data.

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05758354

Position: Peer Reviewer

Academic degree: PhD

Professional title: Academic Research, Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Greece

Manuscript submission date: 2022-01-30

Reviewer chosen by: Qi-Gu Yao

Reviewer accepted review: 2022-02-22 14:52

Reviewer performed review: 2022-02-23 14:23

Review time: 23 Hours

| | |
|---------------------------|---|
| 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 Grade E: Do not publish |
| 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 |



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

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|-------------------------------------|---|
| 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

Overall this paper presents an interesting and meaningful method of volume calculation for liver grafts by LIDAR (Light Detection and Ranging). I guess it will revolutionize research in liver transplantation and other tissue transplantation, due to the generalizability of this method. But this paper should be submitted as a research paper, not a review article. Some minor issues are also recommended to be corrected, before being accepted. 1. A flow chart from scanning point cloud data to calculating volumes is recommended to make to clearly illustrate the volumetric assessment. 2. Although the measured results are close to the theoretical results, the authors do not discuss the reason for this difference. Can a relatively large amount of point cloud data be extracted while scanning to improve accuracy? 3. What are the advantages of this method compared to CT or MRI? 4. The authors claim the mean duration of the measurement was 123 seconds. So, if possible, record a video to show the whole process is suggested.



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Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05426597

Position: Peer Reviewer

Academic degree: PhD

Professional title: Assistant Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Greece

Manuscript submission date: 2022-01-30

Reviewer chosen by: Qi-Gu Yao

Reviewer accepted review: 2022-02-23 07:27

Reviewer performed review: 2022-02-24 03:29

Review time: 20 Hours

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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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection |
| Re-review | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



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| 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

This study aimed to evaluate the safety, feasibility and accuracy of LIDAR 3D photography in the prediction of whole liver graft volume and mass. The measurement of 3D photography is an accurate methods to estimate the volume of liver graft. But the approach is not that novel, and how the application of this technology can solve the problem of ex-vivo etimation of liver mass and volume in clinical practice should be discussed. The technical advances of this technology should also be discussed, such as the comsumed time of obtaining the data, and positive or negative false of successful transplant of liver in animals or in human.



RE-REVIEW REPORT OF REVISED MANUSCRIPT

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Peer-review model: Single blind

Reviewer's code: 05758354

Position: Peer Reviewer

Academic degree: PhD

Professional title: Academic Research, Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Greece

Manuscript submission date: 2022-01-30

Reviewer chosen by: Li-Li Wang

Reviewer accepted review: 2022-04-29 04:28

Reviewer performed review: 2022-04-30 07:23

Review time: 1 Day and 2 Hours

| | |
|---------------------------|---|
| Scientific quality | <input checked="" type="checkbox"/> Grade A: Excellent <input 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 |
| Language quality | <input checked="" type="checkbox"/> Grade A: Priority publishing <input 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 checked="" type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection |
| Peer-reviewer | Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous |



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160, Pleasanton, CA 94566, USA
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statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

I recommend acceptance.