April 12th, 2022

Ke-Qin Hu, Koo Jeong Kang, and Nikolaos T. Pyrsopoulos Editors-in-Chief World Journal of Hepatology

Dear Editors:

Thank you for your kind incorporation. I prepared herein our revised manuscript. Our incorporation of the reviewer's suggestion is as follows:

<u>Reviewer #1:</u> I found the manuscript by Kajiwara et al. well written and well structured. Something , dealing with a quite original argument. However the main issue is the absence of statistical difference in the comparison. Therefore, the conclusions are too strong, and not very interesting. However a better structured discussion may improve its clinical appealing.

→ The conclusion in the Abstract section and in the Main text were changed to a rather weak expression, respectively, as follows: "the H-1100 scalpel shows lower passive jaw temperature and maintains its sealing performance by avoiding tissue pad degradation compared to that with the H-HD1000i." and "... the H-1100 scalpel maintains its sealing performance by avoiding tissue pad degradation better than the previous model."

<u>Reviewer #2:</u> Ultrasonic devices are widely used in liver surgery. Kajiwara M et al compare two kinds of ultrasonic device (H-1100 vs. H-HD1000i) tissue pad degradation effects on instrument temperature and sealing performance using ex vivo porcine liver/vessel models. They found H-1100 scalpel shows lower passive jaw temperature and superior sealing performance by avoiding tissue pad degradation compared to that with the H-HD1000i. It can be inferred that by using the H-1100 scalpel, surgeons do

not need to worry about device issues related to tissue pad degradation and may eventually reduce hospital costs. The manuscript is well written and accurate in data. Here is one minor concern: it will be better if the authors add the contents about the time for Ex vivo porcine liver from the living body to experiment.

→ I added the sentence in Materials & Methods as follows: "Commercially available porcine liver was harvested from living bodies at six days before the experiment, maintained and transported at 4°C, and then returned to room temperature on the day of the experiment."

<u>Science editor</u>: The study elucidated ultrasonic device tissue pad degradation effects on instrument temperature and sealing performance using ex vivo porcine liver/vessel models. This study is novel and helpful to the improvement of clinical treatment strategies. However, the result data provided in the manuscript are relatively few, which cannot well support the author's conclusion. It is suggested to expand the research scope and research methods in order to obtain more data support.

→ The conclusion was changed to a rather weak expression as described above (Reviewer #1) to match the result data provided in the manuscript.

I believe the manuscript has been improved satisfactory and hope it will be accepted for publication in World Journal of Hepatology.

Sincerely,

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