January 16, 2015

Dear Editor,

Thank you very much for your letter of January 13, 2015, along with the reviewers' comments. We would like to take this opportunity to thank the reviewers for their excellent evaluation of our manuscript and their valuable comments. We have discussed extensively the questions that were raised by the reviewers, and these have been carefully answered point-by-point in the following paragraphs. The revised manuscript has been improved according to the suggestions of editor. Format has been updated accordingly to meet the standards and format of World Journal of Gastroenterology. Please find enclosed the edited manuscript in Word format (file name: 15980-review.doc).

**Title:** Laparoscopic vs CT-guided radiofrequency ablation for large hepatic hemangiomas abutting the diaphragm

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**Answers to the reviewer # 1**

Thank you for the opportunity to review this work. This manuscript suggests laparoscopic RF ablation for large hepatic hemangioma abutting the diaphragm is safety compared to CT-guided RF ablation. While the manuscript is well written and I was very interested to read it, but I have the following comments: There have been many reports about laparoscopic RF ablation for hepatocellular carcinoma. Although authors states that percutaneous RF ablation of hepatic hemangiomas abutting the diaphragm is more dangerous than RF ablation of malignant tumor abutting the diaphragm due to large adhesion areas, laparoscopic RF ablation for malignant tumor is not mentioned. Are there any difference according to postoperative complications between laparoscopic RF ablation for hemangioma

and RF ablation for malignant tumor? It may be better to describe similarities and differences between them in the discussion part.

Answer: We added the discussion about the use of the laparoscopic approach for RF ablation malignant tumors in the discussion part.

**Answers to the reviewer # 2**

1. In the abstract, please describe the indication for treatment (i.e., symptoms)?

Answer: The indication for treatment has been added in the abstract.

2. Are there certain locations where a CT approach still reasonable? What about a combined approach in a hybrid room?

Answer: All ablative procedures for hemangioma in our institute were performed under percutaneous or laparoscopic approach. The selection of percutaneous or laparoscopic approach was based mainly on the location of the tumor. No open-access RF ablation was performed in this study. Subcapsular hemangiomas underwent laparoscopic RF ablation under ultrasound guidance and the hemangiomas located in liver parenchyma underwent CT-guided percutaneous RF ablation.

For the huge hemangioma larger than 10 cm, our solution is that the laparoscopic approach of RF ablation is used to be the first-line treatment. If a second ablation session is needed, the repeat RF ablation would be performed percutaneously.

All the 6 institution had no the hybrid room. So, we had no chance to try ablating liver tumor by a combined approach.

4. Has microwave ablation been attempted?

Answer: Over the past few years, microwave ablation (MWA) has become an alternative thermal therapy for benign and malignant tumors. Recently, few studies showed that MWA was safe, well-tolerated, and effective in markedly shrinking large hepatic hemangiomas and improving symptoms. However, we have not attempted to treat large hepatic hemangiomas by MWA. Actually, we are planning to initiate a study to compare MWA and RFA for large hepatic hemangiomas.

5. In the Methods: Were these more specifically 4A lesions? Segment 5 is not close to the diaphragm typically. What about segment 2?

Answer: The lesions in Segment 4 in the study were located in the Segment 4A. Moreover, according

the region of Segment 5 adjacent to Segment 8 is close to diaphragm as showed in Fig 2, we included these patients in the study.

For liver tumor located in segment 2, CT-guided RF ablation takes great risk. Several years ago, we experienced an acute hemorrhagic cardiac temponade in treating a HCC lesion in segment 2. Afterwards, for such patients, we preferred a laparoscopic approach [1]. Therefore, the hepatic hemagioma located in segment 2 was excluded in the study.

[1] GAO Jun, SUN Wen-bing, Tong Zi-chuan, et al. Successful treatment of acute hemorrhagic cardiac temponade in a patient with hepatocellular carcinoma during percutaneous radiofrequency ablation. Chin Med J, 2010, 123(11):1470-1472.

6. Is the choice of lap vs CT more a selection bias of institutions rather than planning of one approach over another. How does this affect the findings?

Answer: In the present study, the choice of lap vs CT is more a selection bias of institutions due to availability of intraoperative ultrasonography, rather than planning of one approach over another. In practice, we did not select subjectively the RF approach and arrange patient referral during the study. As a result, the baseline of the 2 groups was comparable as listed in table 1.

7. Chi symbol is missing under statistical analysis.

Answer: Chi symbol has been added under statistical analysis.

8. Did the patient's symptoms improve with treatment? What percentages in each group?

Answer: Of the 31 patients who had pretreatment symptoms related to their hemangiomas, 28 had complete resolution of symptoms and three experienced symptom amelioration without further therapy after ablation. The result was described in the Follow-up Results part.

9. Table 3: *P*-value missing a number.

Answer: There was no the pneumothorax complication in both the CT-guided ablation group and the laparoscopic ablation group. So, there was no *P* value about the pneumothorax complication. We deleted the Pneumothorax in the table 3.

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

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