

Thank you for the opportunity to resubmit our manuscript to *World Journal of Gastroenterology*. Each comment made by the reviewers has been answered below.

Reviewer #02604132

- 1. Trending predictors of PET-avid HCC lesion ( $p < 0.1$ ) and trending variables of outcome analysis on UVA ( $p < 0.1$ ) were included on multivariate analysis (MVA) via Cox-regression analysis. Please describe the reason of  $P < 0.1$ .**
- 2. Tumor burden  $> 50\%$  How was the calculation method?**
- 3. The Title of Figure 3. Kaplan Meier curves for (a) freedom from DM and (b) progression free survival overall survival What does ‘overall survival’ mean?**

*The authors would like to thank reviewer #02604132 for review and comments on the manuscript. Each of the reviewer’s comments has been answered below.*

- 1. Trending predictors of PET-avid HCC lesion ( $p < 0.1$ ) and trending variables of outcome analysis on UVA ( $p < 0.1$ ) were included on multivariate analysis (MVA) via Cox-regression analysis. Please describe the reason of  $P < 0.1$ .**

The authors appreciate this comment by reviewer #02604132. P values represent continuous significance measure and the cut off value of 0.05 is commonly accepted but arbitrarily defined (Gelman, 2013)\*. On univariate analysis, variable with a trending significance in outcome ( $< 0.1$ ) may be influenced by confounding variables and is common practice to account for these variables in a multivariate model. To clarify this, the following sentence was reformatted in method-statistical analysis section into the following “. Significant variables or close but not significant variables might interact and affect outcomes. Therefore, variables with marginally significant effect ( $p < 0.1$ ) on univariate analysis, were accounted for in our Cox-regression multivariate analysis (MVA).”

\* P values and statistical practice. Gelman A1. *Epidemiology*. 2013 Jan;24(1):69-72. doi: 10.1097/EDE.0b013e31827886f7.

- 2. Tumor burden  $> 50\%$  How was the calculation method?**

The authors appreciate this comment by reviewer #02604132. To clarify this the following statement was added to table 1 “ †† Proportional volumes of disease to whole liver based on volumetric imaging”

- 3. The Title of Figure 3. Kaplan Meier curves for (a) freedom from DM and (b) progression free survival overall survival What does ‘overall survival’ mean?**

The authors appreciate this comment by reviewer #02604132. The figure 3 represent KM curves for (a) freedom from distant metastases and (b) progression free survival. The incorrectly placed “Overall survival” was removed. The following sentence was added to methods section to define overall survival “Overall survival (OS) was calculated from the time of radioembolization to the time of death.”

1. **FDG avidity was defined as maximal standardized uptake value (SUVmax) =3 ... Comment: how was that cutoff selected? Should add in the limitations that retrospective choice of cutoff can bias the results.**
2. **The manuscript writes "A study by Kornberg et al (20) consisting of 91 HCC patients undergoing transplantation showed tumor-to-background ratio of >1 on pre-transplant scans was associated with better recurrence free survival of 81% vs 21% (P=0.02)". This is a mistyped quote. The cited paper actually reported a worse survival in PET+ patients, 5-year RFS 21% in PET-positive, 81% in PET-negative ... P=0.002.**

*The authors would like to thank reviewer #02510166 for review and comments on the manuscript. Each of the reviewer's comments has been answered below.*

1. **FDG avidity was defined as maximal standardized uptake value (SUVmax) =3 ... Comment: how was that cutoff selected? Should add in the limitations that retrospective choice of cutoff can bias the results.**

The authors would like to thank reviewer#02510166 for this comment. The normal liver background SUV ranges between 1.4-2\*. As some of the scans were done outside our institute and actual SUVmax was not measured by our team, the value of SUVmax of 3 was selected to identify patients with activity above the liver background. This will also ensure a cutoff of tumor SUV to liver SUV ratio of at least 1.5 which correlated with outcomes in various publications\*\*.

The following sentence was added to the discussion-limitation section with appropriate references "The selection of SUVmax of 3 might introduce bias in patient categorization but based on what was previously mentioned the selected value will ensure selecting patients with true active disease above normal liver background, which ranges between 1.5-2[40], and will provide a minimum value for ratio of tumor SUV to Liver SUV of 1.5 which correlated with outcomes in different publications [41]."

\* Optimization of whole-body positron emission tomography imaging by using delayed 2-deoxy-2-[F-18]fluoro-D: -glucose Injection following I.V. Insulin in diabetic patients. Turcotte E Mol Imaging Biol. 2006 Nov-Dec;8(6):348-54.

\*\* Prognostic significance of parameters from pretreatment (18)F-FDG PET in hepatocellular carcinoma: a meta-analysis. Sun DW. Abdom Radiol (NY). 2016 Jan;41(1):33-41. doi: 10.1007/s00261-015-0603-9.

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The authors would like to thank reviewer#02510166 for this notice. The cited study reported outcomes were mistakenly typed. The sentence in paragarp no. 4 in Disucusson was

reformatted to the following “tumor-to-background ratio of >1 on pre-transplant scans was associated with worse recurrence free survival of 81% vs 21% (P=0.02).”

*The authors appreciate the recommendations from the reviewers and have addressed the concerns above making a number of changes to the text of the manuscript. The authors believe the manuscript has been strengthened by the peer review process.*