

Response Letter

27 December 2019

RE: Manuscript No. 52409 – The utility of PET-CT scan in detecting residual hepatocellular carcinoma: A case series of PET-CT scan complementing multiphasic scans in treatment-experienced patients.

Dear Editor,

We appreciate the opportunity that allows us to submit a revision of our manuscript.

We have revised our manuscript according to the “Guidelines and Requirements for Manuscript Revision: Case Report,” per your instruction. We have shortened our title due to the word count limit. Additional information has been added to the Title Page as instructed. We have subdivided our case description for each case into sections such as Chief complaint, History of present illness, Imaging examination, Treatment, etc. We have also added additional information for History of past illness, Physical examination, etc. Other changes have also been made, such as the addition of PMID and DOI for each reference cited. Changes made are tracked (underlined and in red) by the MS Word functionality.

The following are our responses to the reviewers.

The comment of Reviewer 03408355 is appreciated, for his/her recommendation to accept our manuscript. We have also corrected a few grammatical errors and typos in the revision.

The comments of Reviewer 02539179 are appreciated, for recommending minor revision to our manuscript. We have added types of images (such as MRI, PET) to the figure legends, as recommended. In terms of the reviewer’s question of “the mechanism(s) for why PET-CT can be helpful in some but not all cases of HCC,” based on the four cases we are presenting, we could only conclude (as in our Conclusion) that PET-CT can be helpful in monitoring treatment response to locoregional therapy when contrast-enhanced multi-phase scans fail to identify residual HCC tumors. We have asked the same question too, and hopefully a large prospective study could help answer the question of “what kind of HCC can be selected for PET-CT scanning.”

We truly appreciate the encouraging comments of Reviewer 00053888, who pointed out precisely the strengths and weakness of PET-CT scan in the detection of residual HCC post-treatment. We have corrected a few grammatical errors as recommended.

The comments of Reviewer 02438768 are appreciated, for recommending minor revision to our manuscript. We have changed the format of our manuscript per WJGO's requirements, as stated above.

Perhaps the best way to address the concerns of Reviewer 03475479 is the comment from Reviewer 00053888: "...It can often be difficult to tell the difference between tumour necrosis and active disease in patients who have undergone treatment. CT PET is traditionally not used in the diagnosis and FU of HCC because of the difficulty in interpreting avidity within the liver substance.... The authors have not really suggested what this role might be but have proposed further evaluation of the technique. Overall this is an important finding and the authors have quite rightly not overplayed their findings...."

We also would like to point out that hepatocellular carcinoma is diagnosed based on imaging criteria (Liver Reporting and Data System, LI-RADS) and often aided by elevated AFP, without histological evaluation, given the current guidelines and standard of care practice. Biopsy of treated HCC lesions is infrequently performed, due to the risk of bleeding and seeding. We therefore did not have biopsies for cases I, III and IV, either pre-treatment or post-treatment.

In addition, EOB is not required by LI-RADS, and we get more robust enhancement with non-hepatobiliary agents; therefore, we use extracellular agents instead. For HCC treatment response, LI-RADS states to assess nodular focal enhancement, washout, or any findings seen in pre-treatment scan to assess viability. EOB is not one of those features endorsed by LIRADS either. Thus EOB is not standard of care and is not used routinely for HCC, though it might help.

We also appreciate the positive comments from Reviewer 00053419, for pointing out the benefits of PET-CT scans in these four patients presented.

Respectfully,



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