Author's response to reviews

Title: Free moving abdominal mass successfully treated with radiation therapy using Cone beam CT

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Editorial Team
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Re: ms 1722716206331261, “Free-moving abdominal mass successfully treated with radiation therapy using cone-beam CT” (Dabaja et al.)

Thank you for the thoughtful comments on our manuscript. We provide below a point-by-point response to both reviewers’ comments. All changes to the manuscript have been highlighted in yellow.

Reviewer 1

“...basic information [should be provided] regarding initial presentation, diagnosis, and chemotherapy details, especially whether the initial presentation was with gastrointestinal problems and abdominal masses or with systemic disease. Appropriate references for the diagnosis and treatment of mantle cell lymphoma should be provided.”

Response: We have expanded the case presentation to include these details as requested.

[Information should be provided on] “the exact location of the abdominal mass at relapse, i.e., within the small or large bowel wall? With extension into the mesentery? Was the mass not suitable for surgical removal?”

Response: We have provided additional information to define the exact location of the mass in relation to these organs, and we clarified that the development of pancytopenia precluded surgical resection.

“Was there any evidence of residual systemic lymphoma at the time of relapse?”
Response: We have described the extent of residual systemic disease evident at that time (October 2008).

“Results of the full blood count...should be provided to substantiate the statement of pancytopenia. SI units should be used”
Response: We have added the details requested and included the SI units.

“Was a PET/CT scan performed before the radiotherapy? If so this scan should be provided for comparison with the post radiotherapy PET/CT”
Response: This information has been included as Figure 5, which compares PET images obtained before and at 6 weeks after completion of the radiation.

“Minor language corrections, mostly grammar, are needed.”
Response: The paper has been edited by a professional scientific editor.

Reviewer 2

“It would be useful to show or at least discuss CBCT images/findings before and after a treatment fraction to assess the treatment margins used.”
Response: This is an excellent point; unfortunately we cannot address it, because we did not obtain cone-beam CT images after each treatment fraction, only before.

“The discussions on the CBCT accuracy issues seem to be a bit off topic whereas an analysis of the overall uncertainty on the dose distribution received by the patient would be valuable.”
Response: We have deleted the paragraph about the CBCT accuracy that this reviewer considered off topic.

Regarding the overall uncertainty of the dose distribution: we retrieved the CBCT scans done daily during treatment and contoured the mass on each one. We then fused the daily tumor locations with the original planning CT scans and applied the isodose lines of one fraction to visualize the volume of tumor that would have been missed if the treatment port had not been modified daily by using the CBCT. We also displayed in a dose-volume histogram the actual daily dose that would have been received if the CBCT had not been used (Figure 4). Notably, the volume and dose received and displayed are not accurate, because the tumor was not actually missed and because the treatment was working—as proven by shrinkage of the tumor volume from 214 cm3 to 70 cm3 by the end of the treatment. This information has been included in the text.

“The manuscript is poorly written.”
Response: The paper has been edited by a professional scientific editor.

We have also added the ethnicity of the patient and labeled the figures as requested by the editorial team.
Thank you for taking the time to review our manuscript. We hope that these responses have addressed the reviewer’s concerns and that the manuscript is now suitable for publication.

Sincerely,

Bouthaina Dabaja, MD