Reviewer's report

Title: Prognostic Value of Total Tumor Volume in Patients with Nasopharyngeal Carcinoma Treated with Intensity-Modulated Radiotherapy

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Reviewer: Yong Chan Ahn

Reviewer's report:

Authors investigated whether total tumor volume (TTV) in nasopharynx cancer patients had prognostic significance, based on 455 patients who were treated mainly with concurrent chemoradiotherapy with or without neoadjuvant or adjuvant chemotherapy. Authors found that TTV with the cut-off value of 28 cc was prognostic of treatment failure. This manuscript could be improved with a few modifications.

First, authors are advised to provide an example illustration of tumor volume delineation, especially that of nodal tumor volume. The current description of "the NTV included anatomic sites invaded by lymph nodes with extracapsular spread" is vague and difficult to understand.

Second, the clinical outcomes could be different based on the actual treatment intensities delivered to the patients. It seems that the actual treatment schemes were not homogenous enough. Some did not receive concurrent, neoadjvant, or adjuvant chemotherapy. Authors are advised to provide the clinical outcomes based on the actual treatments delivered and on the stages. Moreover, the probable inter-relation between stage and treatment scheme needs to be evaluated.

Third, authors claim that TTV, coupled with clinical stage, could serve as an important prognosticator needs to be explicitly addressed with more pertinent information. For example, significance of TTV needs to be demonstrated in each stage.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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