Reviewer's report

Title: CT based three dimensional dose-volume evaluations for high-dose rate intracavitary brachytherapy for cervical cancer

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Reviewer: Johannes Carl Athanasios ACA Dimopoulos

Reviewer's report:

The authors report about their retrospective clinical experience with CT based brachytherapy for cervical cancer in a small number of patients. Fifty one cervical cancer received EBRT with concomitant chemotherapy, which included cisplatin plus oral S-1. The chemotherapy regimen used is not considered as standard for the treatment of locally advanced cervical cancer and it is therefore, difficult to compare the presented results with literature results. During and after concomitant radiochemotherapy the patients underwent CT based intracavitary brachytherapy. However, the number of brachytherapy fractions varied significantly between patients.

The presented results are favorable, the methodology is clear. However, there are some comments.

English editing of the manuscript is necessary. The number of patients is rather low. The brachytherapy dose varied significantly between patients and it is difficult to draw any conclusions about dose and effect. The authors arbitrarily introduced a cut off level for the D90 of HR CTV based on outcome differences with the Kaplan Meier method. These results were compared with results from the literature, which are based on dose effect curves. This comparison is hypothesis generating.

The authors describe that the GEC ESTRO recommendations for MRI based target contouring were applied for the patients of this study. In fact the authors applied contouring guidelines which were proposed in a manuscript of Viswanathan et al. Therefore, this should be clearly stated throughout the entire manuscript.

In my opinion the presented manuscript reports about an interesting experience, but it is suitable for publication only after major revision.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
'I declare that I have no competing interests'