Reviewer's report

Title: Does External Beam Radiation Boost to Pelvic Lymph Nodes Improve Outcomes in Patients with Locally Advanced Cervical Cancer?

Version: 2 Date: 03 Nov 2018

Reviewer: Kathleen Essel

Reviewer's report:

Aim: To assess if pelvic EBRT boost would reduce recurrence, benefit survival, and affect associated toxicities

Design: Retrospective chart review of LACC tx'd w definitive tx.

---+PLN = CT/MRI >=10mm or suspicious features or PET SUV >=2.5

---EBRT dose 45-50.4 Gy w nodal boost ranging 3.6-19.8 Gy

Results:

time frame: 2008-2015

n=139 w LACC

--67 pts w +PLN

--53.7% received nodal boost

5 yr RFS 48.6% v 64.5% (p=0.169)

5 yr OS 74.3% v 80.6% (p=0.143)

No significant difference in toxicity w nodal boost.

Other comments:

--Overall this is an important question to ask. As FIGO recently recognized the worse prognosis of patients w +PLN/PALNs by incorporating those into the staging system, we must ask
ourselves, what can we do to improve the outcomes in these patients? The concept of the investigation is very important, however the study found that radiation boost to the pelvic lymph nodes in patients w radiological positive LNs did not improve survival.

--Page 6. Table 1. Why was a IA cervix cancer patient treated with chemoradiation?

--FIGO recently revised cervix cancer staging, noting that +PLN/PALNs now classify cervical cancer patients as stage IIIC. Would recommend addressing this very new and pertinent change in the background

--Page 6 line 46-48. Error in math. 53.6%+46.2% does not add up to 100%.

--Page 6 line 53-55. Was there a statistically significant difference in the mean size of positive pelvic lymph nodes that received the boost vs not?

--Page 7 Lines 42-Page 8 Line 27. Would appreciate seeing this data in table format.

--Page 9 Line 22. Is this "slightly higher proportion of patients w positive PLNs who had no nodal boost received concurrent chemotherapy" - is this statistically significant?

--Discussion. What are other factors that may have impacted the negative results of this study? Need a table comparing the baseline characteristics of patients w +PLNs who receive boost vs those who do not. Why did the radiation oncologists choose to give boost in some patients, but not in others? Would recommend including median SUV w range, median size LN w range.

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.

Yes

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Acceptable

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