

Peer Review File

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Reviewer A

Comment 1:

The authors present a thoughtful analysis of RTOG 0631 highlighting the importance of patient selection and goals of care when considering spine SBRT for vertebral metastases. 1) However, given the recently published randomized trial with a similar patient population (SC.24) but opposite conclusion, I think it's worthwhile to include a more detailed comparison of the two trials so that the audience can better place the results of RTOG 0631 in context. In addition to the differences in dose/fx between the studies, SC.24 included a more comprehensive central RT plan QA, central retrospective external review, included SINS score (particularly important given that mechanical pain would not be expected to respond to RT alone) and accrued much quicker. Patients more frequently obtained imaging surveillance leading to a subsequent publication on the local control benefit of SBRT over CRT in concordance with the positive PRO finding. Nevertheless, given the differences in findings between the two large clinical trials, it is unclear whether SBRT has a role in short term palliation of vertebral metastases - further investigations are necessary. 2) The issue is nuanced and I would caution the authors against distilling the debate over CRT vs SBRT for spinal metastases as an "old" vs "young" bias.

Reply 1

1) **We concur, but a significant discussion is beyond the scope of this editorial.**

Changes in the text: We acknowledge the nuance involved at the end of the paragraph.

2) **You are absolutely right.**

Changes in the text: We removed those adjectives from the two sentences at the end of the piece.

Comment 2:

The second issue - whether 8 Gy x 1 is a favored approach over 20 Gy in 5 fractions or 30 Gy in 10 fractions for short term palliation is a separate discussion not addressed directly by RTOG 0631. Although historical trials suggest equivalence, many studies included primarily radiosensitive tumors and uncomplicated metastases. The more recently conducted SCORAD trial showed that complicated spinal metastases can be considered but also noted that radioresistant tumors negatively correlated with ambulatory preservation even in patients with limited prognoses. Indeed, local failures in the spine are difficult to salvage and lead to more devastating neurological consequences than local failures in many non-spine bone metastases so patient selection is key. However, the authors' intent of highlighting this option for patients worldwide with limited prognoses in resource limited environments is appreciated and I recognize that this is an editorial piece with limited capacity to dive into all the nuance.

Reply 2: This is correct.

Changes in the text: We added a reference to the SCORAD trial at the end of paragraph (new ref 8)

Reviewer B

This is an editorial article on the evolving landscape of SBRT for spine metastases, in response to recently published RTOG0631. The authors provided a brief summary of the historical trials for palliative conventional EBRT for spine metastases, leading up to the emerging use of SBRT, and cited relevant literature (Sprave and SC24). The comments are relatively well-balanced, with reasonable concluding statement that single-fraction cEBRT is an appropriate option for patients with poor prognosis.

Reply: No major changes.