Reviewer's report

Title: Stereotactic ablative body radiation therapy for tumors in the lung in octogenarians: a retrospective single institution study.

Version: 3 Date: 10 November 2014

Reviewer: Cliff Robinson

Reviewer's report:

The authors present herein a retrospective study of 30 patients with malignant lung tumors (mostly non-small cell lung cancer) treated with SBRT at a single institution. Outcomes reviewed included survival, local / lobar, regional, and distant control, and toxicity. As summarized in a table in the manuscript and the conclusions, this study is another in a series of studies looking at outcomes after SBRT in the elderly. As such, while not particularly novel, it does provide additional supportive data in the treatment of this complex group of patients, and the authors are to be commended on their efforts.

The questions posed are well defined. The methods are appropriate and generally well described, with some caveats below. The data are sound, and sufficient detail is presented in both written and tabulated formats. The discussion and conclusions are balanced and supported by data. Prior work is cited and reviewed clearly and concisely.

Major Compulsory Revisions

NONE

Minor Essential Revisions

It is not clear how the "comorbidites" were defined. They are just categorized with no actual definition. For example, what is a thyroid comorbidity? Is there a threshold for TSH or just a remark in the chart that they have any thyroid condition? Same question for all comorbidites. Instead of making a new comorbidity scale, consider instead using ACE-27 or Charlson (or age adjusted Charlson), calculators for which are readily available online. If you do not wish to do that, then at least clarify how these comorbidites are defined.

Under results, the term CRT presumably refers to chemoradiotherapy but is not defined.

In results, please report the 95% CI for the stage I patients.

How did you make the distinction between dyspnea and pneumonitis? This can be very challenging in this patient population. Consider clarifying in the text.

For the 1 patient treated to 60 Gy/3 fx, was that actually 60Gy/3 or was it a pre-heterogeneity-era corrected 60 Gy/3 fx that should really be reported as
Discretionary Revisions

The title and consistent use of octogenarians is a bit misleading, as there are more than octogenarians present (i.e. at least one patient is $\geq 90$!). Consider changing to something more inclusive?

The paragraph on toxicity is challenging to follow. For example, consider moving the description of different grades of dyspnea to the same part of the paragraph, rather than being interposed with a sentence about grade 2 pneumonitis.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**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'