Reviewer's report

Title: Consolidation Chemotherapy may Improve Survival for Patients with Locally Advanced Non-small-cell Lung Cancer Receiving Concurrent Chemoradiotherapy - Retrospective Analysis of 203 Cases

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Reviewer: John Varlotto

Reviewer's report:

I was asked to review a manuscript entitled, “Consolidation chemotherapy may improve survival for patients with locally advanced non-small cell cancer receiving concurrent chemoradiotherapy – Retrospective analysis of 207 cases.”

Currently, whether consolidative chemotherapy (cct) is needed after concurrent chemoradiotherapy is an important question in the management of patients with locally advanced non-small cell lung cancer. The authors have assessed this question via a retrospective review. However, retrospective reviews of this subject must account for selection bias, i.e., patients with better performance status and/or less toxicity from chemoradiotherapy may be selected for cct and may already have a better survival whether or not they receive cct.

Overall, I think that the manuscript is well written and provides a timely analysis of an important topic and deserves consideration of publication if the following criteria are met:

Major Compulsory Revisions
1. How many patients were assessed by pet scan prior to therapy? Was there a disparity between the cct and the non-cct group?
2. Table 3 shows the overall toxicity between the groups, but it does not show the differences in toxicity between the groups after concurrent chemoradiation. Was the toxicity after concurrent chemoradiation a selection factor for cct?
3. The authors must account for the overall survival benefit associated with cct despite not having differences in LRPFS or DMPFS.
4. What were the intervals used for ct scan surveillance? Did ct scan surveillance interval affect the results in #4?

Minor Essential Revisions
1. Although more patients in the cct arm had a positive selection factors (younger age, female and a lighter history of smoking), the multivariate analysis was able to account for those selection factors. The authors should mention this statistical adjustment in their conclusion.
2. How was local failure defined?
3. The y-axis on each of the graphs in figure 1 should be labeled appropriately? Only one y-axis should be labeled survival.
Level of interest: An article of importance in its field

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’