Reviewer's report

Title: Parenchymal Preserving Anatomic Resections Result in Less Pulmonary Function Loss in Patients with Stage I Non-Small Cell Lung Cancer

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Reviewer: Christopher W Seder

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Macke and colleagues performed a retrospective analysis examining change in pulmonary function associated with segmentectomy (1-2 segments) and lobectomy (3-5 segments). Significantly less of a decline in absolute FEV1 was noted in patients undergoing segmentectomy, while there was no significant change in DLCO at a median of 1 year follow up. The authors conclude that parenchymal-sparing resections result in better preservation of pulmonary function, suggesting a potential long-term benefit.

Overall, the manuscript is well-written and is easy to read. A large patient population is included with pre- and postoperative PFTs. A few of the weaknesses of the study are adequately addressed in the discussion (acknowledging selection bias, VATS vs. open, etc). Overall, I recommend the manuscript for publication if the following questions are addressed (major compulsory revisions):

1) Why do the authors suspect absolute change in FEV1 is significant, but FEV1 (%pred) is not?
2) The range of time until PFTs is very large. The median is 1 year, but the distribution would be interesting to see. Some patients were included that were nearly 7 years out from surgery. Perhaps those outliers should be excluded (>3 years?).
3) The Japanese literature quote 200 cc as a potentially significant reduction in FEV1, however, does that apply in the West, where patients are generally larger? Maybe 200 cc is not significant in the studied patient population.
4) Figure 1 is not necessary

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