

Peer Review File

Article Information: <https://dx.doi.org/10.21037/jtd-23-1983>

Reviewer A

Comment 1:

First, in discussing the benefits of sublobar resection, you cited preservation of pulmonary function as an example. However, there are reports suggesting that there may not be a significant difference in preserving pulmonary function between sublobar resection and lobectomy. I'd like to hear your thoughts on this matter and the reference paper will be considered in this editorial (if it is necessary).

Response: In the two recent large randomized controlled trials Saji et al in 2022 and Altorki et al in 2023 comparing outcomes of sublobar resection with lobectomy, sublobar resection did have a significantly smaller reduction in measures of pulmonary function. That is, in the Saji study median reduction in FEV1 at 6 months and 12 months for sublobar resection was 10.4% and 8.5%, respectively compared to the median reduction in FEV1 at 6 months and 12 months for lobectomy at 13.1% and 12.0% respectively ($p < 0.0001$ for both). In this case, the difference was statistically significant, but it did not meet the pre-trial arbitrary difference of 10% and was therefore deemed not necessarily clinically significant. Similarly, in the Altorki study, the reduction in FEV1 at 6 months was 4% for sublobar resection and 6% for lobectomy with confidence intervals that did not overlap. Though there seems to be a modest difference in preservation of pulmonary function, these differences are statistically significant. It is unclear what degree of pulmonary function preservation is clinically significant and likely depends on the pre-operative pulmonary reserve, with preservation exponentially more important with more marginal surgical candidates. In addition, these studies evaluated pulmonary function tests at a relatively short interval (6 months to 1 year post-operatively) as opposed to longer term 5-to-10-year outcomes. Therefore, these studies may not capture the true degree of pulmonary function preservation of sublobar resection versus lobectomy in the long term. The Saji study did show an increase in difference of FEV1 reduction between sublobar resection and lobectomy from 6 months to 1 year (2.7% at 6 months and 3.5% at 12 months). We do believe that there is a significant difference in preservation of pulmonary function by performing a sublobar resection as opposed to a lobectomy, however, we also understand that the benefit is theoretical at this point in time given that it is unclear what the threshold for clinical significance is and what the true magnitude of pulmonary function preservation is in the long term.

Changes in the text: Added "However, it should be noted that the study by Saji et. al demonstrated a median reduction in FEV1 at 6 months and 12 months for sublobar resection of 10.4% and 8.5%, respectively compared to a median reduction in FEV1 at 6 months and 12 months for lobectomy

at 13.1% and 12.0% respectively ($p < 0.0001$ for both). This reached statistical significance but did not reach the pre-trial cut-off of an improvement of 10% in reduction of FEV1 for clinical significance. Similarly, in the Altorki study, the reduction in FEV1 at 6 months was 4% for sublobar resection and 6% for lobectomy with confidence intervals that did not overlap. Though this seems to be a statistically significant difference, it does not represent a clinically significant difference.” to page 3, line 66.

Comment 2:

Second, regarding the mention of SBRT, is it logically appropriate? While the focus of the paper (Li et al.) is on GGO and surgical approaches, I'm uncertain whether discussing SBRT in the review is warranted. Although Li et al. mentioned the lack of comparison with SBRT as a weakness in their paper, it feels somewhat abrupt for SBRT to be brought up in the review. If the review is supposed to be centered around the inadequacy of comparison with SBRT, then it might be suitable, but otherwise, it feels a bit out of place.

Response: We agree that discussion of SBRT as an alternative to surgery is not central to the focus of the paper nor our editorial. We will therefore, not discuss SBRT.

Changes in the text: We will delete page 4 lines 95-99.

Comment 3:

Lastly, though minor, I wonder if "can be treated" in line 87 would be better expressed as "can be regarded as a treatment of choice"?

Response: We will change the wording in line 87 to be clearer while also retaining the importance that surgery in this scenario serves as a cure given the 100% RFS at 10 years.

Changes in the text: will change page 4 line 87 from “can be treated” to “can be regarded as a cure”.

Reviewer B

I have carefully reviewed your manuscript and appreciate the effort to elucidate the effectiveness of surgical resection in treating GGOs in a single-center setting. Your acknowledgment of multiple biases and limitations in your study is commendable, as it demonstrates a transparent approach to your research. I have comments as below.

The manuscript seems to lose focus on its core message, particularly towards the end. It would be beneficial to more explicitly state what you wish to emphasize – specifically, the circumstances under which surgical resection for GGOs is most effective. This clarity will significantly enhance the impact of your findings.

Response: We agree that the commentary loses focus at the end and will therefore delete the discussion of SBRT to retain the core message. We believe that by omitting the discussion of SBRT, we will end the commentary by highlighting the remarkable results of 100% RFS at 10 years for this subgroup of lung cancer and further highlight that sublobar resection should be the standard of care.

Changes in the text: We will delete page 4 lines 95-99 and add “in a timely manner” after sublobar resection on page 4 line 90.

Reviewer C

I congratulate the authors for their comments regarding the study by Li D and colleagues. The study by Li D and colleagues concludes that no recurrence was observed in patients with pure GGO-featured lung adenocarcinomas 10 years after surgery.

The title of the presented comments is “Pure GGO lung adenocarcinoma: surgical resection is curative” and is really straightforward.

Therefore, the importance of the comments presented is quite high.

I do not have any further substantial amendments to suggest.

Response: Thank you for reviewing our work