

Peer Review File

Article Information: <https://dx.doi.org/10.21037/vats-23-44>

Review comments

Reviewer A

Techniques and findings are well described, but overall it is scattered and difficult to read. Introduction is too long.

Comment 1: No need for the first half (Line 51–61, 68-71).

Reply 1: Part of the introduction was cut or rearranged in other sections of the paper.

Comment 2: A part of the definition and indications sentence should be included in the introduction (Line 85–93) or pre-operative planning (Line 110–114).

Reply 2: Part of pre-operative planning and anaesthesia, patient position and incision were rearranged. Headings structure was changed to facilitate reading.

Comment 3: “Line 131-132” should be included “Anaesthesia, Patient Position and Incision”.

Reply 3: Part of pre-operative planning and anaesthesia, patient position and incision were rearranged. Headings structure was changed to facilitate reading.

Comment 4: “Lines 171-176” should be included in “pre-operative planning”.

Reply 4: Part of pre-operative planning and anaesthesia, patient position and incision were rearranged. Headings structure was changed to facilitate reading.

Comment 5: “Bronchial Sleeve Resections” and “Vascular Sleeve Resections” would be easier to read if subheadings such as "Indication" and "Surgical Technique" were added. Also, please show as table the tips and pitfalls of the technique together.

Reply 5: Subheadings in both bronchial and vascular sleeve sections were included. We find more useful to mention tips to avoid complications while explaining the cause of these complications in proper length alongside bronchial sleeve technique.

Reviewer B

Comment 1:

I would like to thank the handling editor for giving me the opportunity to review the manuscript entitled “Uniportal video-assisted thoracoscopic surgery (U-VATS) bronchial and vascular sleeve resections” by Bolufer and colleagues, which is currently under consideration for publication in VATS. I would also like to commend the authors for their scholarly work, which provides a comprehensive overview of U-VATS when performing sleeve lobectomy.

The authors begin by outlining the factors that may necessitate a U-VATS approach when performing a vascular sleeve or a double bronchial and vascular sleeve lobectomy. They highlight conditions such as large tumours, extensive involvement of the pulmonary artery, time-consuming surgical manoeuvres, and the presence of hilar lymph nodes as potential challenges that might require conversion to open surgery. The manuscript then delves into a detailed discussion on the current trends among modern thoracic surgeons, with a particular emphasis on lung parenchyma sparing techniques. The authors argue that these techniques, which aim to avoid pneumonectomy, are the preferred option in selected patients regardless of lung functional status. They substantiate this argument with evidence suggesting that these techniques result in better residual pulmonary function, lower short- and long-term surgical morbidity and mortality, and improved quality of life without compromising oncological prognosis. The authors further strengthen their argument by presenting a comparative analysis of sleeve lobectomies and pneumonectomies. They draw on data from the French Epithor database and the United States' National Cancer Database to demonstrate that sleeve lobectomies are associated with better overall survival rates and fewer postoperative complications. Finally, the manuscript discusses the increasing acceptance of U-VATS and multiportal VATS over traditional thoracotomy. Despite the lack of official clinical guidelines endorsing VATS sleeve bronchoplastic resections, the authors argue that VATS is a feasible and safe alternative to open surgery for the treatment of patients with centrally located lung cancer undergoing sleeve lobectomy.

This informative manuscript has the potential to be a valuable addition to the existing literature by presenting a detailed discussion on the current trends in thoracic surgery, particularly the preference for lung parenchyma sparing techniques to avoid pneumonectomy. The paper provides compelling arguments in favour of these techniques through an analysis of various studies and databases. The authors have effectively compared the outcomes of sleeve lobectomy and pneumonectomy, providing valuable insights into the benefits and drawbacks of each approach.

Nonetheless, I would like to provide some constructive feedback regarding potential areas for improvement.

Firstly, while the manuscript provides a comprehensive overview of U-VATS in the context of lung surgeries, it could benefit from a more detailed explanation of the procedure itself. A more in-depth description of the surgical technique, including the specific steps involved in U-VATS, would enhance the reader's understanding and appreciation of the complexity and skill required in these procedures.

Secondly, the manuscript could further strengthen its arguments by including more recent studies in the field. While the authors have made good use of existing databases and studies, incorporating the latest research would ensure that the manuscript remains at the forefront of current knowledge and practice in thoracic

surgery.

Thirdly, the manuscript would benefit from a more critical analysis of the studies it cites. While the authors have done well to present the findings of these studies, a deeper examination of their methodologies, sample sizes, and potential biases would add depth to the discussion and allow readers to better evaluate the strength of the evidence presented.

In terms of language and structure, the manuscript is generally well-written and logically organised. However, some sections could benefit from clearer subheadings to guide the reader through the various topics discussed. Additionally, the authors might consider revising some sentences for clarity and conciseness to ensure that their arguments are conveyed as effectively as possible.

Finally, while the tone of the manuscript is appropriately academic, it could be made more engaging by highlighting the clinical implications of the findings more explicitly. This would help to emphasize the relevance of the research to practicing clinicians and could potentially increase the impact of the work.

In conclusion, I would like to reiterate my gratitude to the handling editor and the authors for reviewing this interesting paper. I hope these suggestions are helpful in refining the manuscript. The authors have undertaken a significant study that contributes to our understanding of U-VATS in lung surgeries, and with some revisions, I believe this manuscript has the potential to make a substantial impact in the field of thoracic surgery.

Reply 1:

Thank you for your comments.

U-VATS specific tips are included on every step only if the technique needed is different from multiportal or open approach.

Our practice is well supported by the literature reviewed and not only with our experience. However, the aim of our work was not to present a systematic review or an extensive step by step illustrated guide to vascular and bronchial sleeve resection. Several subheadings were rearranged and new ones included for clarity and better structure of the text.

Reviewer C

Comment 1:

Thank you for giving me the chance to review this interesting paper.

Aim of the study is to describe the clinical indications and standardise the technical aspects of uniportal VATS bronchial and vascular sleeve resections and review their results compared to pneumonectomy and the classic open approach.

The paper is interesting mainly because it shows several surgical outstanding videos. I suggest improving figures, in sense of image quality, if possible, but also with indications of anatomical structures.

Since this is a surgical technique paper, with a nice literature review, the title must be changed. By reading title as it is now, you wonder the description of an institutional series, with data about complications, mortality and so on.

You should be clearer also in the abstract and introduction, clearing assessing that you're going to report your surgical technique and a literature review about advantage of VATS versus open thoracotomy in advanced thoracic procedures.

Reply 1:

Thank you for your comments.

We agreed to change the title of the paper to be more specific about its content.

Abstract and introduction have also had minor modifications to better represent the aim of our study.

We also agree image quality could be better, but we have limitations with the resolution of the source equipment.