Author's response to reviews

Title: Sleeve lobectomy by video-assisted thoracic surgery versus thoracotomy for non-small cell lung cancer

Authors:

Shijie Zhou (zhoushijieccmu@163.com)
Guotian Pei (pgtdoctor@163.com)
Yi Han (hanyiccmu@163.com)
Daping Yu (yudapingccmu@163.com)
Xiaoyun Song (songxiaoyunccmu@163.com)
Yunsong Li (lyunsongccmu@163.com)
Ning Xiao (xiaoningccmu@163.com)
Shuku Liu (liushukuccmu@163.com)
Zhidong Liu (liuzhidong@ccmu.edu.cn)
Shaofa Xu (shaofaxu@gmail.com)

Version: 4 Date: 13 August 2015

Author's response to reviews:

Dear Editor:
Thank you for your interest in our paper and for sending us the comments of the reviewers. We appreciate the reviewers’ careful and thoughtful suggestions for clarification and improvement of the manuscript. We have made the modifications and revisions as requested in the revised manuscript.

We hope that you will now find the article improved and suitable for publication in The Journal of Cardiothoracic Surgery. However, if there are any further issues, which you or the reviewers feel need attention, please let us know.

Response to reviewers' comments

Reviewer: Lorenzo Spaggiari

Q1: This is a very interesting and well written paper.....It would be useful for the reader to show a CT-scan image of a patient selected for VATS and one image of a patient included in the open group. This is to better clarify criteria of inclusion in the VATS group.

A1: We much appreciate the reviewer's comments and suggestions. In the revised manuscript, we have added a CT-scan image of a patient selected for VATS and one image of a patient included in the open group.

Q2: Surgical Technique: “All operations were performed by the same surgical team” this is not clear. Only one surgeon preformed the 10 VATS sleeve lobectomy? If so, what is the lesson learned after 10 consecutive procedure? Reduction of the operation time was observed?

A2: We much appreciate the reviewer's comments and suggestions. All
operations were performed by the same surgical team, the chief surgeon is Dr. Liu or Dr. Xu. The average operating time in the VATS group was 226min (range 210 min to 265min). Due to the small number cases, the operating time in the VATS group has not been obviously reduced. We have made relevant modification in the revised manuscript.

Q3: Discussion: “In the present study, there were no conversions to thoracotomy in the VATS group”. Authors should mention possible reasons to convert to an open procedure. For example hilar lymph nodes involvement?

A3: We much appreciate the reviewer’s comments and suggestions. Interference by lymph nodes and bleeding are the most important causes of conversion to thoracotomy in video-assisted thoracoscopic surgery. Based on your comment and request, we have made relevant modification in the revised manuscript.


A4: We apologize for the inadvertent mistake and would like to thank the reviewer for pointing this out. We have made relevant modification in the revised manuscript.

Reviewer: Domenico Galetta

Q1: The Methods are appropriate and well described and the figures and tables are appropriate. In the Discussion section the Authors should comment on recent reports on single-port sleeve lobectomy experiences.

A1: We much appreciate the reviewer’s comments and suggestions. Based on your comment and request, we have reviewed some recent reports on uniportal VATS sleeve resection and added these reports in the Discussion section of the revised manuscript. We also have improved the English writing by a native English speaker in the revised manuscript. We hope the reviewer will find the revised manuscript suitable for publication in JCTS.

Reviewer: Alessandro Bertani

Q1: The paper has a significant limitation due to the english language; it requires a very extensive revision. Some sections can be hardly understood.

A1: We much appreciate the reviewer’s comments and suggestions. Based on your comment and request, we have improved the English writing by a native English speaker in the revised manuscript.

Q2: The case series is reasonably representative compared to other publications although still very small. There are several recent reports in the literature of successful VATS sleeve lobectomy. These should be reviewed by the authors and included in the references. The paper does not focus on any specific innovative topic of VATS sleeve lobectomy.

A2: We much appreciate the reviewer’s comments and suggestions. Based on your comment and request, we have reviewed some recent reports in the
literature of successful VATS sleeve lobectomy and added these reports in the references in the revised manuscript. In fact, we have discussed the different suture technique in the section of Discussion. We put forward reform measures of the suture technique in this paper. Continuous anastomosis combined with interrupted consolidation used in our study avoided the presence of absorbable suture placing in the bronchial lumen, therefore decreasing postoperative sputum retention and irritable cough. It also decreased the anastomosis time.

Q3: The statistical design is very basic and could be improved in order to make the paper more attractive. Is a propensity score matching applicable in this series?

A3: Thank you very much for your comment. We admit that propensity score matching is a widely-used method to measure the effect of a treatment in social as well as health sciences. Due to the small number cases in the VATS group, we didn’t apply a propensity score matching method. We are sorry for that.

Q4: The description of the surgical technique should be massively improved. Anterior or posterior approach? Please expand and refer to the standard approaches (are you using a standard or modified approach?)

A4: We apologize for the lack of clarity. For thoracotomy patients, sleeve lobectomy was performed through a traditional posterolateral thoracotomy incision at the fifth intercostal space. This has been described in the revised manuscript.

Q5: Figure 1 is very difficult to interpret and of limited help in understanding the technique.

A5: Thank you very much for your comment. Continuous suture and three points interrupted suture were performed. The anastomosis was first initiated at the junction of the cartilaginous and membranous walls by using interrupted 3-0 suture. Absorbable 3-0 sutures, with knots placed outside the bronchial lumen, are used to decrease the possibility of stricture and granuloma formation. Then followed by the continuous suturing clockwise and counter clockwise for one third of the circumference. Another two points of interrupted suturing is followed when the continuous suturing is finished. The final step is to complete the remaining one third of the bronchus circumference using continuous suture.

Q6: The process of preoperative staging and selection of the patients for sleeve lobectomy should be discussed more in detail. What are the inclusion and exclusion criteria for a sleeve lobectomy.

A6: We much appreciate the reviewer’s comments and suggestions. The inclusion criteria for VATS sleeve lobectomy include: endobronchial tumors and small tumors (tumor size <5cm) with limited invasion of the bronchus; no evidence of vessel invasion; no direct invasion to the surrounding organs; no extensive pleural adhesion on the CT scan; and the ability to physiologically tolerate the planned resection. We have made relevant modification in the section of Materials and Methods in the revised manuscript.

Thank you very much for your comment again.

Sincerely yours,
Dr. Liu