#### Peer Review File

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## Reviewer A

I read with great interest about the sophisticated and efficient D-RATS. I have several comments.

**Comments 1:** Please describe the reason why this study cohort did left upper lobectomy not included.

**Reply 1:** Thank you for your important comments. Because this study reports our experiences during the initial introduction of DRATS, we have decided that the cohort may comprise patients with relatively good conditions. Therefore, there were no cases of left upper lobectomy. We believe it will be necessary to find the efficacy of D-RATS and accumulate cases including left upper lobectomy.

Changes in the text: We have modified our text as advised (see Page 12, line 189-191)

**Comments 2:** What are your thoughts about the application of manual staplers to your D-RATS procedure.

**Reply 2:** Thank you for expressing your opinion. Compared to manual staplers, the use of robotic staplers is easier than in URATS as the incision is lower and the bigger angulation inside allows for an easier insertion of the robotic staplers. One of the reasons for placing another incision in an inferior location is to allow for this correct articulation of the staplers internally. Recently, we have tried to use a manual stapler for cost reasons.

Changes in the text: No changes in the text.

**Comments 3:** In my expression regarding U-RATS, assistant surgeon is 50% of assistant. How about the role of assistant surgeon in case of D-RATS?

**Reply 3:** Thank you for expressing your opinion. I think the role of an assistant surgeon is 30% of an assistant. In this reason, the console surgeon uses a stapler and the utility port can be widely handled. Therefore, I think that assistant surgeons in D-RATS are easier than in U-RATS. **Changes in the text:** No changes in the text.

### Reviewer B

First of all, congratulate the authors.

Although it is a descriptive article with little "n", it describes a novel approach with its tricks that allow us to solve some problems that we can find in URATS.

I would like you to review a couple of minor things:

**Comments 1:** In the discussion, reference is made to less postoperative pain with the DRATS compared to other techniques, but have they collected pain scales or are they simply referencing Han et al?

**Reply 1:** Thank you for your important comments. Unfortunately, as we collected pain scales only with the D-RATS, we could not compare to other methods. As you noted, I draw from the literature of Han et al.

Changes in the text: No changes in the text.

**Comments 2**: In my opinion, figures 3 and 4 could be eliminated because they are not necessary to understand the technique.

The article has certain limitations that are well described by the authors, I encourage them to try to improve them for possible future publications.

**Reply 2:** Thank you for your suggestion. We agree with your opinion and eliminated figure 3. As for Figure 4, we believed it was useful to show the positional relationship between the robot arm and the long curved forceps.

If possible, I would like to change Figure 4 to Figure 3 for publication.

**Changes in the text:** We have eliminated figure 3 and changed Figure 4 to Figure 3.

# Reviewer C

Review: The paper presents a retrospective cohort study on the feasibility, safety, surgical technique, and early postoperative outcomes of Direct Robotic-Assisted Thoracoscopic Surgery (DRATS) for early-stage lung cancer. The study encompassed 20 patients, with lobectomy performed in 80% and segmentectomies in 20%. The key finding emphasizes the safety and feasibility of DRATS for anatomical lung resection in adults with early-stage lung cancer, with a mean surgery time of 121 minutes and no reported complications or perioperative deaths. Before publication, the following issues need to be addressed:

**Comments 1:** Surgeons' Information: The manuscript lacks details regarding the surgeons involved in the procedures, such as the number of surgeons and their respective experience levels. This information should be included in the method section to provide a comprehensive understanding of the surgical team's expertise.

**Reply 1:** Thank you for pointing out the problem. We added to the details the number of surgeons and their respective experience levels in our surgical team.

**Changes in the text:** We have modified our text as advised (see Page 7, line 93-96)

**Comments 2:** Left Upper Lobectomy: The reason for not including left upper lobectomy in the study is not described. This omission should be addressed, and the rationale should be explained in either the result or discussion section to clarify the study's scope and limitations.

**Reply 2:** Thank you for your important comments. Because this study reports our experiences during the initial introduction of DRATS, we have decided that the cohort may comprise patients with relatively good conditions. Therefore, there were no cases of left upper lobectomy. We believe it will be necessary to find the efficacy of D-RATS and accumulate cases including left upper lobectomy.

Changes in the text: We have modified our text as advised (see Page 12, line 189-191)

**Comments 3:** Laterality of Segmentectomies: The information regarding the laterality of segmentectomies, including the superior segment of the inferior lobe and basal, should be incorporated into Table 2.

**Reply 3:** Thank you for pointing out the problem.

**Changes in the text:** We have modified our text as advised (see Table 2).

#### **Reviewer D**

I think the paper is original and interesting.

**Comments 1:** You should adequately describe the technique adding some tips and tricks. Mostly, I think you should add to the references the first reported paper in the literature related to a complete URATS casuistic of patients. That paper is also the first one to report an early follow up of the patients.

**Reply 1:** Thank you for your careful review. As for the D-RATS surgical techniques, those described in Surgical Preparation and Techniques are all. We appreciate your valuable feedback and will continue to investigate D-RATS surgery in our future studies. In accordance with the reviewer's comment, we have added add to the references the first reported paper in the literature related to a complete URATS (Da Vinci Xi).

Changes in the text: We have modified our text as advised (see Page 15, line 239-240)