

Peer Review File

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Reviewer A

The authors describe a retrospective study investigating the clinical outcomes of SPS in general thoracic surgery for a small number of patients

I congratulate the authors for using the SP system which will be probably the future of thoracic surgical procedures

However this is a weak study, with simple procedures, nothing new and not relevant for readers of a scientific journal. This procedure has already been described in previous publications.

I encourage the authors to continue acquiring experience with this system and collect a bigger number of patients including anatomic pulmonary resections

I disagree with this sentence: “To perform pulmonary resections, an additional port for a laparoscopic stapler might be needed, and think that it is not true single-port surgery, which is our end goal”

For expert Uniportal and Subxiphoid surgeons this system can be applied for major pulmonary resections without the need of an additional port. Please read the first publication of SP System in thoracic surgery, in 2018 and how the authors manage the insertion of staplers. As this is the first report with the SP system, should be cited in the paper. (Gonzalez-Rivas D, Ismail M. Subxiphoid or subcostal uniportal robotic-assisted surgery: early experimental experience. J Thorac Dis 2018. doi: 10.21037/jtd.2018.12.94)

Figures and tables are Ok

Answer; We appreciate for reviewer’s valuable comment. We cited the paper which reviewer commented and also toned down the sentence according to the reviewer’s comment like this;

“To perform pulmonary resections, an additional port for a laparoscopic stapler might be needed, even though Gonzalez and Ismail reported the feasibility of lobectomy using SPS in cadaver.”

Reviewer B

Park et al describes their experience in use of SP system in thoracic surgery. Overall it is nice report of the experience. I would recommend making following adjustments.

1. Please focus the paper on the use of SP system in resection of anterior mediastinal mass using subxyphoid approach. I believe the paper would be more focused and powerful to describe this technique and approach instead of making it a general thoracic surgery experience.

Answer; We appreciate for reviewer's valuable comment. This paper focused on the initial experiences of SP system. To apply SP system in the field of general thoracic surgery, the selection of proper approaches is most important. Therefore we included all kinds of approaches with all kinds of indications.

2. By focusing on this indication, the paper can provide a step by step technique and outcomes of homogenous cases instead of heterogeneous cases

Answer; We appreciate for reviewer's valuable comment. As the same reason stated in previous question, we included all kinds of approaches with all kinds of indications in this paper. Based on the reviewer's valuable comment, we have plan to focused on the thymectomy using SPS in next paper.

Reviewer C

Great job doing a proof of concept paper. Great patient selection. Excellent Videos except there is misspelling in the subxyphoid video - Caudiere, not Cardiere, unless the name of the instrument is different with SPS.

Answer; We appreciate for reviewer's valuable comment. The official name of forcep in the SP system is Cadiere, so we modified the video.

I don't know what to make of your pain scale without a complete discussion of your pain management techniques. I saw a pain pump placed on our subcostal video. Is that standard? I would expect your LOS of stay to be shorter with lower pain scores with less and smaller incisions.

Overall, great technique paper.

Answer; We appreciate for reviewer's valuable comment. The pain pump is the routine procedure, and it depends on the surgeons' preference. We also agree with that short

length of stay and low pain score are related to less and smaller incisions.

Reviewer D

Congratulations on your innovative work. I am pleased to recommend your paper to the journal. Experimental surgery is always difficult to bring it to an end and your job is fantastic in exploring new techniques in thoracic surgery.

I think the explanation about de CO2 is a little bit long, and complicated to imagine if you don't know the instruments you are talking about, but is reality.

I encourage you to continue exploring the SPS system and tell the community your reports in order to continue learning newer and less traumatic thoracic surgery techniques.

Answer; We appreciate for reviewer's valuable comment. To maintain the minimal length from the cannula to the target anatomy, the cannula and wound retractor have to be floated. With floating the cannula, maintaining the CO2 is most important issue and to solve we have to conduct the animal and cadaver experiment several times. Therefore we explain about CO2 insufflation little longer. The mechanism and instruments of SP system is difficult to understand without experiencing the system.