

Peer Review File

Article information: <https://dx.doi.org/10.21037/jovs-22-32>

Reviewer A

Thank you for an interesting article describing customised intraoperative lymph node sampling during robotic resection for PDAC in the tail of the pancreas in a clear way. The clinical and practical issues and problems you present are highly relevant and concern all pancreatic surgeons.

I have a few comments that I hope can help improve your article.

Comment: Dear reviewer, thank you very much for reading the manuscript and your interesting considerations, that are really pertinent and were indeed very useful to improve the article.

- Would you consider describing the rationale for choosing the injection site that you did and what you see as an optimal site?

Comment: That is an interesting consideration. In fact, our option was to perform the injections within the parenchyma close to the tumor in an area that would also be resected. The rationale was not to maintain any parenchyma with indocyanine green dye (as this was the first time this agent was injected in the pancreas), guarantee that we would evaluate the specific pancreatic area of the tumor while not making any puncture directly on the tumor for oncological reasons. This rationale was included on the manuscript on Page 7, Lines 9-15. Thank you very much for the opportunity to explain our rationale on the manuscript.

- You write that there were three patients enrolled but I do not see data presented nor a reason why two of them are not presented.

Comment: Indeed, since we performed the first case and already writing the technical report, we performed two more cases, and included the mention of these two in the manuscript. We thought that including the other two could give some kind of “consistency” in our findings. However, I totally agree that total of three cases would not allow any kind of statistical analysis, only a “impression” of consistency. For this reason (that three cases would not be enough to perform any kind of statistical analysis), I took the option to maintain the first idea to keep it as the original idea of a technical report. So, we removed from the manuscript the parts that cited the other two cases. They were similar to the first reported on the article and reached very close results in terms of time consumed to the maneuvers and lymph node retrieval. (Abstract Pages 1 and 2; Page 4, Line 19-21; Page 5, Line 1; Page 11, Lines 15-16; Page 12, Line 1; Page 12, Line 8-15).

- I think a comparison of operation time to the standard resection, without fluorescence and extended lymphadenectomy, would give a better picture of how much extra time this procedure takes.

Comment: Such a good point! Thank you! My idea to address this was to review the video of the procedure and count the time consumed in the maneuvers that were specific to the technique, not performed on the “regular” robotic distal pancreatectomy. Indeed, these maneuvers were only “added” to the regular procedure, and all other steps performed are the same.

This is a very important aspect that was really missing in our manuscript. In order to evaluate the increment on the operative time, we reviewed the video of the operation we reported and calculated the time spent on the maneuver’s referent to the lymphatic drainage evaluation.

We could observe 3 moments:

First: fluorescence evaluation of the lymphatic drainage: 18 minutes (17:56)

Second: resection of the mesocolon: 14 minutes (13:46)

Third: closure of the defect in the mesocolon: 13 minutes (13:04)

Total: 45 minutes

All other maneuvers, including intraoperative sonography, we regularly perform in our robotic pancreatectomies.

We included this information on the manuscript (Page 12, Lines 8-17).

- I would also like to read about future plans, having tested the feasibility of this technique, such as further studies. Finally, I think the issue of number of resected lymph nodes might be inferior to what lymph nodes are resected. This is something you may have come closer to.

Comment: Dear colleague, we took these two considerations and addressed them together in the revision of our manuscript. We totally agree that only the number of retrieved LNs can be totally irrelevant if the CORRECT LNs are not resected. And this is our precise future plan. Evaluate if we have positive nodes in the pathological findings and, maybe one important topic, if the resection of not only LNs but also all the tissue (including nerves, vessels) may reduce local recurrence. Thank you very much again! This was included as the final thoughts of our manuscript (Page 13, Lines 3-13).

The references are not correctly numbered.

Comment: Correction made on Page 11, Line 25

Reviewer B

This manuscript is well written and very timely theme in pancreas cancer management. I have no specific comments.

Comment: Thank you very much for reading our manuscript. I am especially happy that you appreciated our work!

Reviewer C

Comment: Dear colleague, thank you very much for the effort of reviewing our manuscript. Thank you very much for your considerations, that are especially relevant to our manuscript.

VIDEO quality was low.

Comment: I am sorry that we could not provide better video quality. We used the better recording quality available on the da Vinci robotic platform video drive that resulted in a 36,7 gigabytes file. We used a video editing app and exported the final edited video file with the best video quality available, with 25 fps, 10000 kps and 1920x1080 resolution.

Why did you do not en bloc resection in performing pancreatosplenectomy with positive LN area?

Comment: Thank you very much for the consideration! Indeed, this is an important issue that we

did not address in the article. As a basic “principle” of oncological surgery, en bloc resections are preferred. It came to our mind performing an en bloc resection, however, as this is a novel technique and an en bloc resection could somehow change the “original” procedure dissection of the inferior pancreatic margin, we opted to perform first the procedure – the dissection of the inferior pancreatic margin – and then, after the “original” procedure was completed, perform the resection of the mesocolon. Possibly, if we perform some more cases, or if we have consistent signs of better staging or better oncological results, this will be the last technical aspect to be considered. Very well observed indeed.

We added this rationale to the manuscript (Page 8, Line 20; Lage 9, Lines 1-7)

I think your procedure is not LN navigation surgery.

Comment: Dear colleague, having a deeper thought of the concept of **SENTINEL** Lymph Node Navigation surgery, I agree that this is not exactly a sentinel lymph node guided surgery, as we are not evaluating THE FIRST lymph node draining the pancreatic body. What we could observe was the lymphatic drainage of the pancreatic body, in real time, as expected LNs presented fluorescence enhancement (disclosing that the method indeed evaluates the lymphatic drainage – video at 4 min – LN 8 and figure below) but we had the unprecedented finding of a not previously suspected drainage to the mesocolon and mesocolic lymph nodes. More than an innovative finding, it may be an opening to, at least, reduce local recurrence, and is a new glance at the lymphatic drainage of the pancreas. We performed, indeed, a lymphatic drainage evaluation of the pancreas in real time, and guided our procedure accordingly. Putting this in mind, I really think that this a guided lymphadenectomy and not a **SENTINEL** LN, and as a result and your suggestion we modified the Title of the article, not referring to it as a sentinel guided surgery (Page 1, Line 1)

Did you have informed consent for patient? Registry documents did not attach.

Comment: We did have informed consent of the patient and cited in the manuscript (Page 4, Lines 20-22).

In technical aspect, splenic artery control is first before pancreatectomy in original RAMPS procedure. This video was not acceptable for RAMPS procedure.

Comment: Dear colleague, we totally agree that this is not a RAMPS procedure. In fact, we cited the mean LN retrieval in both the “regular” and RAMPS procedures and the minimum acceptable LN retrieval to stress the fact that by our technique the LN retrieval is much greater. After a careful review of the entire manuscript, we could not find any citation that we performed a somehow “modified RAMPS”, instead, we described an alternative procedure: “Moreover, the resection of all fluorescence enhanced tissue, particularly the mesocolon, resulted in a 43 LNs retrieval, while the mean LN retrieval of RAMPS procedure is 21 LNs and the acceptable number of retrieved LNs during pancreatosplenectomies for the treatment of distal PDAC is 12 LNs”.