Peer Review File

Article information: https://dx.doi.org/10.21037/jovs-23-21

Reviewer Comments

Just a question on the extension of tumor up the bile duct - how far was the extension?

Reply 1: The tumor involved only the base of the bile duct at the sphincter of Oddi. It did not extend into the bile duct and was truly only located at the ampulla.

Otherwise, good job on the article. It certainly opens up another option for removal of an ampullary lesion.

Reply 2: Thank you very much for your recognition of our work toward surgical treatment options of ampullary lesions.

Editorial Comments

1. **We kindly request that you revise your manuscript according to the SUPER** (Surgical techniqUe rePorting chEcklist and standaRds) **guideline (https://www.thesuper.org/) and please include the completed checklist (the reformatted SUPER checklist for the journal is attached) as a supplementary material when submitting your revised manuscript.** For each item on the checklist, specify the corresponding page/line and section/paragraph number in the manuscript. Here is an example for your reference: https://jovs.amegroups.org/article/view/117123/rc. For items on the list that are not relevant to your case, kindly indicate "N/A". Filling out the checklist can improve the reporting of surgical techniques and facilitate readers' learning. We'll appreciate the time you'll dedicate to this endeavor, and we believe it will make the article both more comprehensive and academically robust.

Reply 1: See the attached SUPER checklist now completed for our manuscript.

2. Please expand the abstract to meet our word count requirement (200-350 words). Below are some points for consideration.

(1) Start with a brief introduction of "benign tumors at the ampulla of Vater".

(2) Rationale or Background: Why was there a need for this new surgical technique? Have there been any limitations or complications with the traditional methods?

(3) It's helpful to mention results or benefits of the technique, such as better visualization, reduced surgical time, or improved patient outcomes compared to traditional methods, etc.

(5) Clearly state the innovation or the main contribution of your paper.

Reply 2: I have expanded the abstract to meet the word requirement via the above suggestions.

Changes in text: Periampullary tumors are rare lesions that originate in a complex anatomical region including the ampulla of Vater, the distal common bile duct, the second portion of the duodenum, the head of pancreas, and the pancreatic duct. Tumors of the

Ampulla of Vater are distinct from other cancers of the duodenum, the common bile duct, and the pancreas in that they are distal to the confluence of the common bile duct and the pancreatic duct. These lesions may be benign or malignant, and the mainstay treatment is excision. Endoscopic resection, open transduodenal ampullectomy, and pancreaticoduodenectomy have been historic options for the treatment of the benign tumors at the ampulla of Vater. Adoption of minimally invasive transduodenal ampullectomy via laparoscopy remained limited due to the complex surgical anatomy of the ampulla of Vater. As minimally invasive hepato-pancreato-biliary procedures are becoming more common due to better visualization and improved patient outcomes, novel approaches to treatment for benign diseases are being developed. With recent advancements of minimally invasive surgery via robotics, technical challenges due to complex surgical anatomy could be mitigated. This paper presents a novel approach of robotic transduodenal ampullectomy as an acceptable treatment option for benign tumors at the ampulla of Vater using submucosal injection of Eleview□ blue viscous solution. (page 2, paragraph 2)

3. Highlight Box - Surgical Highlights: This point could emphasize the “robotic approach” as this is central to the novelty of the method. Moreover, kindly ensure there’s minimal repetition between this section and the “what is novel/modified” portion.

Reply 3: I have made the changes to the highlight box as suggested above.

Changes in text:

Surgical Highlights

□ Submucosal injection of Eleview□ blue viscous solution for dissection and resection of a benign tumor at the ampulla of Vater.

□ Robotic approach for resection of a benign tumor at the ampulla of Vater compared to the historic open approach.

What is conventional and what is novel/modified?

□ Transduodenal ampullectomy via open approach is conventional.

□ Transduodenal ampullectomy via the robotic approach and via the use of submucosal injection of Eleview□ blue viscous solution for dissection and resection of a tumor at the ampulla of Vater are novel.

What is the implication, and what should change now?

□ All benign tumors at the ampulla of Vater can be considered resectable via this study’s approach.

(page 3, paragraph 1)

4. Introduction: “With recent advancements of minimally invasive surgery via robotics, these technical challenges due to complex surgical anatomy could be mitigated.” This statement might benefit from a clearer articulation. Could you delineate more specifically the advantages of the robotic approach and how it addresses the limitations of prior

methods?
Reply 4: I have added clarity to this sentence in the introduction as followed.
Changes in text: With recent advancements of minimally invasive surgery via robotics, the technical challenges due to complex surgical anatomy could be mitigated. Specifically, the dissection of the complex anatomical region including the ampulla of Vater, CBD, second portion of the duodenum, head of pancreas, and PD via laparoscopy or open approach can be mitigated via the wristed instruments and camera of the robot. (page 4, paragraph 1)

5. It would be advantageous to briefly mention in the Introduction what content the surgical video of this report will cover.
Reply 5: I have added the following statement to better describe the content of our video.
Changes in text: The video provides step-by-step instruction on the preparation, robotic access and visualization, dissection, Eleview□ blue viscous solution injection, and resection of a benign ampullary tumor. (page 4, paragraph 1)

6. For alignment with the journal's requirements, consider reorganizing the sections titled "Patient Selection and Workup", "Equipment Preference Card", "Surgical Technique", and "Postoperative Management" to **"Preoperative Preparations and Requirements", "Step-by-step Description", and "Postoperative Considerations and Tasks"** accordingly.
Reply 6: I have formatted the manuscript accordingly to the journal's requirements.
Changes in text: See the headers, "Preoperative Preparations and Requirements", "Step-by-step Description", and "Postoperative Considerations and Tasks" on pages 4, 5, and 7.

7. Please mention how long the patient had been experiencing the symptoms.
Reply 7: I have added the time frame of the patient's symptoms in the sentence below.
Changes in text: A 68-year-old female presented with early satiety, significant weight loss, and inability to tolerate oral intake across 3 months. (page 5, paragraph 1)

8. Patient Selection and Workup: "Computerized tomography (CT) showed a double duct sign. … esophagogastroduodenoscopy (EGD) with endoscopic ultrasonography (EUS) in which an ampullary mass was identified." Might you consider supplying these imaging data separately as figures of this paper? This would enable our readers to gain a clearer understanding of the surgical case at hand.
Reply 8: I have added the following image with legend to the manuscript.
Changes in text:

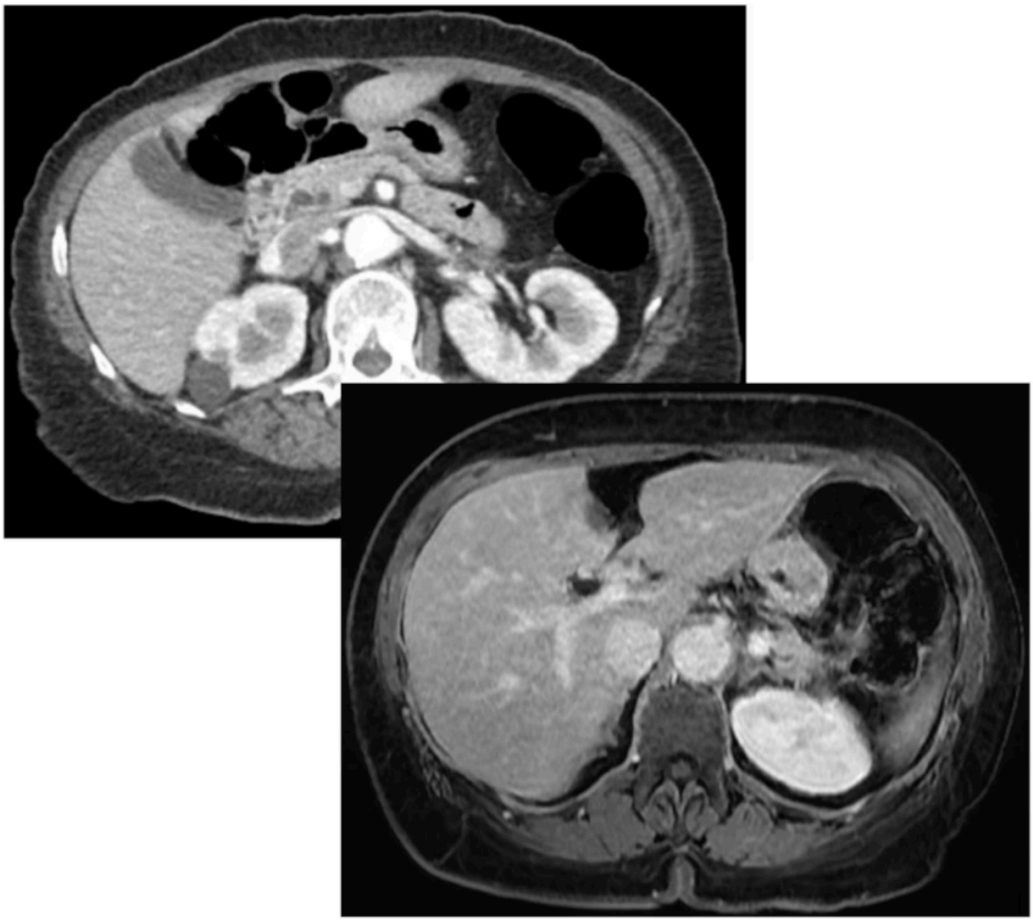

Figure 1: Preoperative CT imaging showing patient's the double duct sign and ampullary lesion consistent with a low-grade neuroendocrine tumor. (page 8, paragraph 2)

9. Patient Selection and Workup: "Further treatment options were discussed with the patient, and ultimately a robotic transduodenal ampullectomy was the operation of choice." Could you offer insights into what factors led to the choice of the robotic transduodenal ampullectomy. Were there any other options considered?

Reply 9: I have added the following treatment options and the reasons as to why they were not chosen to the manuscript.

Changes in text: Further treatment options were discussed with the patient; these options included an open resection that would result in higher morbidity and hospital length of stay versus endoscopic resection with would result in higher risk of perforation given the location of the lesion and involvement of the bile duct and pancreatic duct. Ultimately, a robotic transduodenal ampullectomy was the operation of choice. (page 5, paragraph 1)

10. Please consider providing details about the primary members of the surgical team, including the main surgeon, assistants, anesthetist, and technicians in the "Preoperative

Preparations and Requirements" section. Relevant experience and qualifications, such as the number of similar surgeries the lead surgeon has performed, any specialized training, and its duration, would be insightful.

Reply 10: I have added a special section under "Preoperative Preparations and Requirements" that addresses this surgical team and its requirements.

Changes in text: Surgical Team: A surgeon with previous robotic hepatopancreaticobiliary experience is necessary to the lead the surgical team. An anesthesiologist, an operating room nurse, and a scrub technician who also have experience in robotic hepatopancreaticobiliary surgery are necessary for a successful operation. (page 5, paragraph 3)

11. In the "Preoperative Preparations and Requirements" section, it would be informative to elaborate on the preparatory measures undertaken for the patient, including any prophylactic antibiotics or medications administered prior to surgery.

Reply 11: I have added the following sentence to address prophylactic antibiotics administered as our patient is undergoing anesthesia.

Changes in text: Piperacillin/Tazobactam is the perioperative antibiotic of choice when manipulating the biliary system. (page 6, paragraph 1)

12. Please note the operative time and blood loss during the procedure.

Reply 12: I have added the following statement to address operative time and blood loss.

Changes in text: Operative time is approximately 120 minutes. Blood loss is minimal at 50 mL. (page 7, paragraph 2)

13. The "Discussion" section seems somewhat concise. It would be enriching if you might consider expanding this section. For instance, introducing statistics or data regarding reduced hospital stays, complications, or augmented patient outcomes could be valuable. Delving deeper into the benefits of the robotic approach, especially in comparison to the open and laparoscopic methods, might be enlightening. Furthermore, discussing any inherent challenges or learning curves, particularly for surgeons transitioning from conventional techniques, could offer a more comprehensive perspective.

Reply 13: I have expanded the "Discussion" section in the following way and added the feedback accordingly.

Changes in text:

Surgical Highlights: The surgical highlights from this paper include performing transduodenal ampullectomy via the robotic approach using submucosal injection of Eleview□ blue viscous solution for the dissection and resection of a benign tumor at the ampulla of Vater.

Strengths and Limitations. This paper provides an alternative approach to difficult to access benign tumors of the ampulla of Vater without needing to convert to an open procedure or perform a more invasive surgery such as a pancreaticoduodenectomy.

Limitations of this paper are that a surgeon needs to have experience with pancreas resections from an open and robotic perspective prior to attempting this technique. Furthermore, some institutions may not have robotic access available to them, limiting their ability to exercise this technique.
Comparisons with Other Surgical Techniques and Research. In comparison with an open and laparoscopic approaches, exposure, visualization, dissection, resection, and reconstruction are technically less difficult, and patients recover more quickly with the robotic approach. Furthermore, the robotic approach offers greater precision, less pain, and shorter recovery times as previously reported in the literature.
Implications and Actions Recommended. Future studies are necessary to compare the outcomes and benefits to this robotic approach compared to laparoscopic and open approaches. (page 8, paragraph 2)

14. Introduction: "Tumors of the Ampulla of Vater are distinct …" - consider whether "Ampulla" should be consistently capitalized throughout the text or kept in lowercase. This will help maintain consistency.
Reply 14: I have changed every "ampulla' throughout the paper to remain lowercase. Thank you for helping us provide consistency to the paper.

15. Video
(1) Please insert a still slide with the operator's name, title, ethics, and informed consent information on the first page of the video.
(2) Please provide a short title for the video.
Video 1: XXX…
(3) For the video legend, kindly include the full forms of the abbreviations present in the "patient presentation" section at the start of the video.
(4) Please assure the originality of the video. The video must be the original work of the authors and must not be published previously or under consideration for publication elsewhere.
(5) Please add a video citation in the main text.
-Suggested wording: *"Here we present xxxxx with a video" or "The purpose of the manuscript was to present our technique and results (Video 1)."*
Reply 15: The video is original in that I created it from the operation my team performed. I have added these changes to the video legend and abstract.
Changes in the text: Video 1: A novel approach of robotic transduodenal ampullectomy as a treatment option for benign tumors at the ampulla of Vater using submucosal injection of Eleview blue viscous solution. page 11 sentence 2)