

## Peer Review File

Article information: <https://dx.doi.org/10.21037/tau-23-399>

### Reviewer A

This is an article on feasibility of trans-retro-peritoneal-partial nephrectomy for posterior hilar tumor. It is a cardinal rule not to open the peritoneum during the retroperitoneal approach, but their change of mindset is very interesting. The manuscript is very well written, and I have raised some minor points to be addressed.

#### Minor:

**Q1.** Line 51: Please select key words from Mesh Database.

**A1.** We thank the reviewer for this valuable suggestion. Following the comments, the key words were updated according to the Mesh Database.

**Q 2.** Line 74: < 7 cm?

**A2.** The sign “ $\leq$ ” was added.

**Q3.** Line 128: Do you close the peritoneum after RAPN? Please mention in the “Technique” section.

**A3:** In our study, the peritoneum remained open without closing after the partial nephrectomy. First, there is no necessary to close the peritoneum after PN, in that the incision is large enough to avoid the occurrence of hernia. Second, the process of closing the peritoneum may cause side injury to adjacent organs including spleen and intestines. The related description was added in the “Technique” section.

**Q4.** Line 157: do you mean “decreased” instead of “rose”?

**A4.** We feel sorry for the confusion caused by this mistake. We re-write this sentence in the revised manuscript.

**Q5.** Line 187: As we all know,

**A5.** We deleted the character “n” following the comment.

**Q6.** Table 2: Please indicate when the postoperative eGFR was measured.

**A6.** Thank you very much for pointing out this issue. Postoperative eGFR was measured three months after the surgery, which was indicated in both Table 2 and the “Methods” section.

### Reviewer B

**Q1.** The authors described about the association between suture angle and operative

outcomes in retroperitoneal laparoscopic partial nephrectomy (RLPN). Renorrhaphy in laparoscopic partial nephrectomy is the most important step to prevent postsurgical complications; therefore, this is an interesting topic. I think this study is worthwhile for publication, however, contains some problems.

**A1.** Thank you for reviewing our research paper and providing your positive feedback. We appreciate your recognition of the relevance of our study and its contribution to the field of RLPN.

We agree with your assessment that renorrhaphy in LPN is a crucial step in preventing postsurgical complications. We appreciate your feedback regarding the presence of some problems in our paper. We assure you that we will carefully address these issues during the revision process. Specifically, we will pay close attention to improving the clarity and organization of the paper. Additionally, we will work on providing more detailed explanations of the techniques used and the methodology employed in our study. Furthermore, we will consider discussing potential limitations, confounding factors, and suggesting future research directions to enhance the overall robustness and comprehensiveness of our findings.

## **Reviewer C**

### **General comments**

The authors have introduced a novel trans-retro-peritoneal technique and conducted a comparative analysis with the conventional procedure for managing posterior hilar tumors in retroperitoneal laparoscopic partial nephrectomy. This technique is interesting and this paper is well written. But I would like to suggest some modifications for improvement.

### **Specific comments for revisions**

#### **Major**

##### **Abstract**

**Q1.** The Trans-Retro-Peritoneal (TRP) is a new technique for LPN and the most important key word in this study. Provide simply the explanation for this technique in the Methods section of the Abstract.

**A1.** We thank the reviewer for this valuable suggestion. The explanation for TRP technique was provided in the Methods section of the Abstract.

##### **Methods**

**Q2.** Clarify the criteria for selecting patients for either the TRP technique or the conventional technique. This point is really critical. Did they perform the TRP technique when they had difficulties in getting good exposure of hilar tumor?

**A2.** We thank the reviewer for this suggestion and clarify the criteria for selecting

patients in revised manuscript: Patients with posterior hilar tumors ( $\leq 7$  cm) who underwent retroperitoneal LPN and had renal cell carcinoma pathological diagnosis were the criteria for either the TRP technique or the conventional technique. The definition of a posterior hilar tumor was that the single tumor on posterior side of the renal hilum, nearing to the major renal vessels but without renal vessel involvement.

Yes, the TRP technique would be performed when the surgeon had difficulties in getting good exposure of posterior hilar tumor during retroperitoneal LPN.

**Q3.** Provide a rationale for utilizing this technique to enhance the exposure of posterior tumors. It seems plausible that this technique facilitates ventrally repositioning the kidney, thereby enabling effective exposure of the posterior tumor.

**A3.** The TRP technique of handling posteriorly located renal hilar tumors involves the following aspects:

First, after the kidney descends to the abdominal side under its own gravity, surgeons can better access to the tumor location. This allows for a more accurate identification and visualization of tumor margins, facilitating precise tumor resection.

Second, this approach facilitates kidney rotation, which simplifies the process of suturing following rotation. The ability to easily manipulate and suture the kidney contributes to the overall surgical feasibility and success.

Third, the increased surgical field provides convenient access for renal artery clamping. It allows for efficient temporary arterial blood flow blockage to be performed, ensuring optimal control during the procedure.

## **Minor**

### **Results**

**Q4.** On Line 154, please define “early unclamping”. in Methods.

**A4.** After completing the first layer continuous suture of the wound bottom, the artery clamping clip was released to restore the renal blood supply. Then the second layer continuous suture of the renal wound was completed.

**Q5.** On Line 155, refrain from abbreviating “RP”. I think Radical nephrectomy is correct.

**A5.** The correct word was indeed “radical nephrectomy”. We deeply apologize for this typo and fixed it in the revised manuscript.

### **Methods**

**Q6.** Provide the description for readers that the images and schemas show left kidney in Figure 1 and 2.

**A6.** Following the comments, the descriptions including left kidney, spleen, and

peritoneum were added in Figure 1 and 2.