Author’s response to reviews

Title: The safety and efficiency of retroperitoneal laparoscopic adrenalectomy via extra and intra perinephric fat approaches: A Retrospective clinical study

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Dear Editor and Reviewer: We are very grateful to the reviewers for their constructive comments on our article. These suggestions help us to further improve our paper. The following is our point to point reply to the reviewer.

Editor: 1. Good article need to add in the title the type of the study.2. What is the type of the study? Mention in your Abstract.Reply: This paper is A Retrospective clinical study. And we will add the words into article title and Abstract of manuscript.(Reviewer 1) Awale Mohamed Abdullahi, M.D: In your conclusion need to mention the superiority approach of IPEA than EPEA in terms of peritoneal injury and the duration time.Reply: Thank you very much for your suggestion. We have added “IPEA is superior to EPEA in terms of peritoneal injury and duration.” into the conclusion.(Reviewer 2) Pier F. Alesina: 1. The surgical technique, as it is the issue of the paper, should be better described. The figure should be more descriptive. Which side, for example, is represented? It is not indicated.Reply: In view of the problems raised by the review about the surgical technique, we add the key points about the operation technique in the method and the discussion part of the manuscript. In addition, the picture provided is a sketch of the
operation, and the left and right sides have been shown as required. 2. In my experience there is a difference between the right and the left adrenal gland due to the different position of the gland in relation to the kidney. Is a mobilisation of the kidney necessary, at least for the left side? Reply: Generally speaking, the location of the right adrenal gland is higher than that of the left adrenal gland. For patients with lower tumor location, no matter which surgical approach is adopted, the kidney should be dissected with a wider range to reveal the surgical field of vision and ensure the safe and effective operation. Thereby ensures the safety and effectiveness of the operation. 3. Which approach has been used for which patients? In other words, how the authors decide the approach to be used for which patients. Was the amount of fatty tissue into the retroperitoneum considered to make a decision? Reply: According to this study, the feature of peripheral kidney fat is the main factor to be considered when doctors decide which approach might be more suitable for patients. When dissecting peripheral fat to the kidney, stiff or adherent peripheral fat may cause the procedure to be more complicated. Base on Mayo Adhesive Probability (MAP), the main risk factors for AFP including posterior and lateral peripheral fat thickness, and peripheral fat stranding on CT imaging. Thus preoperative evaluation of the AFP is crucial for deciding the superior surgical approach. We prefer the EPFA approach for patients who were considered to have a stiffness or adherent PF. 4. For the IPFA approach at which level is the division of the periphrenic fat started? This decision can be difficult in obese patients. Reply: In IPFA group, the position of opening perirenal fat was located at the level of middle lateral border of kidney. In determining the division plane of perirenal fat, some anatomical markers should be consulted. In the posterior abdominal cavity, the position of the arcuate ligament is at the level of the renal pedicle. For patients with thicker perirenal fat, an arcuate ligament can be chosen as an anatomical landmark, thereby, effectively determining the position of the kidney and improving the efficiency and safety of separating the perirenal fat. 5. Especially in male patients the fatty tissue is often strongly attached to the kidney. Is there any suggestion about the best approach in those cases. This is a point to be discussed. Reply: This kind of adhesions and rigid adipose tissue will increase the complexity of IPFA. When dissecting perirenal fat, the instrument should be closely attached to the perirenal fascia for separation. If the renal fascia is easy to rupture and bleed, in order to avoid further injury, it is better to switch to EPFA. We had added this in the discussion part. 6. The Table describing the patients should be improved. The clinical diagnosis is not indicated. The authors indicate only the pathology. Reply: Based on review's suggestions, we have added the diagnosis for the patients in Table 1. Thank you very much. 7. For suspicious malignant tumors would the authors still suggest a IPFA approach? It is probably oncologically more correct to perform en-bloc resection of tumor a fatty tissue. Reply: Thank you so much for review's suggestion. In general, adrenal tumors less than four centimeters are mostly benign tumors, but the possibility of metastatic cancer or primary adrenal malignancy cannot be completely ruled out. If the preoperative diagnosis is highly suspected that the tumor is malignant, en-bloc resection of tumor and the peripheral fatty tissue is the reasonable choice, thus, it is probably oncologically more correct to choose EPFA. Thanks again for providing us with such a good advice. We made a reasonable addition in the discussion. 8. I suggest to add a subgroup analysis in the section results separating male and female patients. Reply: We fully agree with review's point of view. As reported in the literature, gender is a risk factor for adipose sclerosis and adhesions, so it may also be one of the factors affecting the choice of surgical approaches for adrenal tumors, especially in male patients. In this study, we analyzed patients' gender, BMI, and diabetes, and there were no significant difference between two groups. Since this a single-center retrospective study, we did not specifically explore the impact of gender factors on patients, we