Peer Review File

Article Information: https://dx.doi.org/10.21037/tau-22-430

Round 1:

Reviewer Comments

The authors have carried out a careful study. The M-index does appear to select out some characteristics to make scoring simpler. Please note I have marked corrections and comments in a Word copy for the authors (as seen attached). These need attention. A small issue but there are many many double spaces between words in your document. These should be single spaces.

Comment 1: "large" and "irregular" need better explanations.

Reply 1: We have modified our text as advised.

Changes in the text: Large tumor diameter refers to larger than 5 cm, while irregular tumor morphology refers to not regular shapes such as round, oval, or lobular.

Comment 2: This might be a pathological term but it needs explanation in the context of this paper.

Reply 2: We have modified our text as advised.

Changes in the text: Complex RCC refers to the completely endogenous tumor, and those being close to the renal hilum or renal sinus.

Comment 3: This is the first use of partial nephrectomy and the abbreviation should be presented here and used thereafter.

Reply 3: We have modified our text as advised.

Changes in the text: partial nephrectomy (PN)

Comment 4: Why?

Reply 4: The purpose of partial nephrectomy is to completely remove the tumor and protect the surrounding structures. Therefore, the excision of the peritumoral tissue is less.

Changes in the text: Less excision of peritumoral tissue has led to increased missing of cases with adverse pathological features, such as sinus fat, calyx or venous infiltration.

Comment 5: I am not sure why this sentence is bolded. A short explanation of TRIPOD would be appreciated.

Reply 5: We have modified our text as advised.

Changes in the text: 9We present the following article/case in accordance with the TRIPOD reporting checklist for prediction models of risk of disease development or progression.

Comment 6: Explain these acronyms

Reply 6: We have modified our text as advised.

Changes in the text: The R.E.N.A.L. score consists of radius (tumor size as maximal diameter), exophytic/endophytic properties of the tumor, nearness of tumor deepest portion to the collecting system or sinus, anterior/posterior descriptor and the location relative to the polar line. The preoperative aspects and dimensions used for an anatomical PADUA score was generated to predict the risk of complications by evaluating anterior or posterior face, longitudinal, and rim tumor location; tumor relationships with renal sinus or urinary collecting system; and percentage of tumor deepening into the kidney. The DAP score consists of diameter, axial, polar. Centrality index (Cindex) is described to quantify the proximity of kidney tumors to the renal central sinus.

Comment 7: Should this be cT1-2?

Reply 7: All the 200 patients enrolled in this study were clinical T1-2, and 83% of them were pathologically diagnosed as T1-2.

Changes in the text: (pT1-2)

Comment 8: Explain briefly

Reply 8: We have modified our text as advised.

Changes in the text: which were not regular shapes such as round, oval, or lobular.

Comment 9: The RENAL score assesses complexity as radial width, exophytic/endophytic growth, nearness to renal sinus, anterior/posterior hilar, and location relative to polar lines.

Reply 9: We have modified our text as advised.

Changes in the text: The R.E.N.A.L score, which consists of radial width, exophytic/endophytic growth, nearness to renal sinus, anterior/posterior hilar, and location relative to polar lines could assess the complexity of nephrometry.

Comment 10: dramatically

Reply 10: We have modified our text as advised.

Changes in the text: significantly

Comment 11: fewer less complex

Reply 11: We have modified our text as advised.

Changes in the text: fewer non-complex

Round 2:

Review Comments

Comment: Corrections have been completed in accordance with recommendations. There are two small errors remaining. Unfortunately, there are no page numbers in the document so I am describing where they are and hoping the errors are located. In the Introduction, line 7, a small spelling typo "increasing application of PN". Increasing is incorrectly spelled. In the "Nephron Scoring System" section "The preoperative aspects and … of the PADUA score were". The verb "were" refers to a plural subject, not to PADUA score.

Re: We thank you for your valuable and helpful comments, which enhanced the significance of our research and helped our manuscript to be pre-accepted for publication. The two errors were revised following the comments.