

Peer Review File

Article information: <https://dx.doi.org/10.21037/tau-24-141>

Reviewer A

A very simple retrospective analysis about RCC about Clear cell RCC.

Results and discussion parts were too simple, has to be widened with definitive analysis and quite new references.

Article has to be re*written with proper English editing.

Tables are very poor, figures are low quality, ROC curves are indistinguishable.

Reply: Thanks for your advice. We have added the relevant content in the “Results and Discussion” parts of the text. Meanwhile, we have cited several new references.

The article has been revised by proper English editing.

Tables have been revised to three-line table format. And the figures have been adjusted to 500 dpi format to improve the image quality.

In the Figure 4 of ROC curve, the blue curve represents AUC of D value, the purple curve represents AUC of F value, the orange curve represents AUC of ADC value, and the yellow curve represents AUC of D* value. The AUC of the D value is the highest.

Changes in the test: see Page 7, line 209-211; Page 10, line 318-335; Page 12, line 382-384; Page 13, line 435-437.

Reviewer B

- 1) First of all, my major concern for this study is that there are four levels of ccRCC grade in clinic-pathology but there are two levels of grade by using monoexponential and biexponential models of diffusion-weighted magnetic imaging.

Reply: Thanks for your advice. Because the number of patients with ccRCC in this study was relatively small and could only be divided into low-grade and high-grade ccRCC groups by using monoexponential and biexponential models of diffusion-weighted magnetic imaging. Additional studies using larger patient cohorts will be performed that include groups corresponding to grades I–IV.

- 2) Second, the title needs to indicate the clinical research design of this study, i.e., a diagnostic test.

Reply: Thanks for your advice. We have added the clinical research design of this study in the title.

Changes in the test: see Page 1, line 4-5.

- 3) Third, the abstract needs some revisions. The background did not describe the clinical needs for comparing DWI and IVIM. The methods need to describe the inclusion of subjects. The results need to first describe the clinical characteristics of the study sample briefly, as well as the corresponding sensitivity and specificity. In the conclusion, “more effective” should be more accurate.

Reply: Thanks for your advice. We have added the relevant content in the abstract, and revised “more effective” to “more accurate” in the conclusion.

Changes in the test: see Page 1, line 26-33; see Page 2, line 44-46, 52-55, 59.

- 4) Fourth, in the introduction of the main text, the authors need to review available studies on IVIM for grading ccRCC and analyze the potential reasons for the controversy. This is important to indicate the clinical needs for this study. The authors need to further explain why the current data are helpful for addressing the controversy.

Reply: Thanks for your advice. We have added the relevant content in the introduction part of the text.

Changes in the test: see Page 4, line 120-122.

- 5) Fifth, in the methodology of the main text, please accurately describe the clinical research design, sample size estimation, and ethical approval of this study. In statistics, please also describe the calculation of sensitivity and specificity. Please also ensure $P < 0.05$ is two-sided.

Reply: Thanks for your advice. We have added the relevant content in the methodology and result part of the text.

Changes in the test: see Page 4, line 130-132; Page 6, line 191-196; Page 7, line 204-205, 207.

- 6) Finally, please consider to cite a related paper: Zhang HM, Wen DG, Chen J, Chen YT, Yin M, Wang Y, Wei Y, Bao YG, Wu YH, Song B. A diagnostic test of three-dimensional magnetic resonance elastography imaging for preoperative prediction of microvascular invasion in patients with T1 stage clear cell renal carcinoma. *Transl Androl Urol* 2023;12(3):466-476. doi: 10.21037/tau-23-94.

Reply: Thanks for your advice. We have cited the related paper as reference 1.

Changes in the test: see Page 12, line 375-378.