

Dear reviewers:

Thanks a lot for your precious opinion of our manuscript, and we have revised it according to your suggestions.

For reviewer 02885958:

1. The reviewer suggested that it might be better that the patients with massive proteinuria be included in this study. It's true that this is an issue that renal clinicians would like to know. However, several previous studies have showed reduced FA values in kidneys with damaged function [10, 20, 21], and that's why we focused on the early stages of DM nephropathy, which are more challenging for the diagnosis in clinical settings. As we've finished the enrollment of this study, we could include patients with massive proteinuria in the following further studies.
2. The reviewer suggested that GFR might be less helpful to assess the severity of early diabetic nephropathy. Indeed, the limited sensitivity of GFR makes researchers explore other exams, such as that we're exploring DTI. In literature, a number of previous studies reported the correlation of FA with GFR in chronic kidney diseases [20, 21]. The correlation between eGFR and FA value is significant in this study as suggested by the p value ($p=0.001$ for medullary FA, and $p=0.043$ for cortical FA), which is the determinant for statistical correlation. We admit that the correlation coefficients were not very high ($r=0.519$ and 0.322 , respectively), since $0.5 \leq |r| < 0.8$ is generally considered a moderate correlation and $0.3 \leq |r| < 0.5$ is considered a relative low correlation. Those correlation coefficients were lower than those CKD studies. This might be attributed to the fact that we included patients of less advanced nephropathy, during which the eGFR have not decreased remarkably. This has been specified in the revised manuscript.
3. Newly appeared abbreviation, DTI, in the abstract has been described with non-abbreviated full term, diffusion tensor image. Thanks for the reminding.
4. In the section of "Renal DTI analysis among groups" in the Results part, the term "cortical" was mistakenly written into "medullary" and has been corrected. Thanks for the reminding!
5. In figure 2 and 3, we've added separated bars showing entire DM patients as suggested by the reviewer.

For reviewer 00503334

1. It's suggested that ADC is another important feature of DTI. However, because of the superposition of vascular flow, tubular flow, and passive

diffusion, the limitations of the traditional ADC model are becoming apparent, which might explain why the previous studies reported various results of ADC. Accordingly, recent studies would like to employ the IVIM model and pay less attention to traditional ADC [10, 20, 21, 29]. That's why we didn't collect the ADC data, which might offer limited incremental value.

2. In the section of "Renal DTI analysis among groups" in the Results part, the term "cortical" was mistakenly written into "medullary" and has been corrected. Thanks for the reminding!
3. In figure 2 and 3, we've added separated bars showing entire DM patients as suggested by the reviewer. There was no significant difference of either cortical or medullary FA between MAU and NAU groups ($p=0.50$ and 0.08 respectively), as specified on the figures.
4. The methods used to measure the serum Cr and BUN have been specified in the fulltext.
5. The article by Hueper et al. has been cited for this manuscript. Thanks for the reminding.

For reviewer 02666537

1. The normoalbuminuria (NAU) group is defined as the urine albumin:creatinine ratio < 30 mg/g, as described in the "subjects" section in materials and methods.
2. We have replaced the sentences 'Cortical.... $p=0.06$).' by statement that results for MAU and NAU were similar.
3. The DWI fat saturation method was specified as raised by the reviewer.
4. Regarding the reproducibility, we've done a pilot study with the first half of the subjects which measured the reproducibility of ROI drawing and analysis. The results showed no significant differences between the measurements of two observers ($p=0.635$ for overall renal FA, $p=0.855$ for cortical FA, $p=0.869$ for medullary FA). The above results corresponded with the previous studies of similar topics, reporting generally good reproducibility of renal FA measurement [23, Cutajar, et al, PMID: 21227619]. That's why we decided that the measurement was reliable and then employed one observer to do the drawing under the supervision of an experienced radiologist. These numbers are not given in this fulltext because they are from our partial subjects' data.
5. We present Table 2 containing the exact numbers of FA measurements and shortened the text of results according to the reviewer's opinion.
6. The reviewer suggested that Figure 5 and 6 be combined in one plot. Since the background of the figures were scatter plots, there were 26 dots on each image. We've tried to combine the two figures, but that made the result less straightforward (52 dots of two shapes in the background with overlap of distribution).

For reviewer 03022180

1. Sorry that the design of the study got confusing. It's a prospective study.
2. The term DTI has been stated as the non-abbreviated full term when first appeared. Thanks for the reminding.
3. The DTI studies of the DM group and the healthy control group were done during the same time period: between April 2017 to March 2018.
4. This study was approved by the ethics committee of our institution. It's agreed that either oral or written consent was acceptable given the non-interfering, harmless, and anonymous nature of the study. We used oral consent and this has been specified in the fulltext now.
5. Regarding the comparison between patients with and without MAU, there was no significant difference of either cortical or medullary FA between MAU and NAU groups ($p=0.50$ and 0.08 respectively), as specified on the figures.