Reviewer's report

Title: Large kidneys predict poor renal outcome in subjects with diabetes and chronic kidney disease

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Reviewer: Peter Rossing

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In the present study 75 diabetic patients were followed for app 60 months and baseline kidney size measured by ultrasound was evaluated as a predictor of outcome (dialysis, and other renal endpoints).

major comments

1) this is a very heterogenous population of type 1 and type 2 diabetic patients, identified as "CKD" with impaired renal function (<60) or AER>30. whereas impaired renal function is usually considered CKD, presence of microalbuminuria is not (whereas macroalbuminuria could be considered diabetic nephropathy. What was the proportion and outcome in microalbuminuric patients with GFR>60? these patients are usually not evaluated by US?

2) the data (GFR, Creatinine and AER) are obviously not normally distributed, and thus should not be presented as mean SD but rather median (range) or alternatives.

3) due to the non normal distribution of data the statistical evaluation using parametric statistics is not valid and thus the conclusions can not be supported unless proper evaluation of either log transformed data or with non-parametric tests.

4) the authors suggest large kidneys to predict dialysis, but if that was the case it is puzzling that at baseline there is no difference in kidney length between the three CKD groups, although there is a weak association between kidney size and GFR.

5) in the figure lines are plotted to 85 months, it looks as if the number of patients is very small in the end and thus it seems inappropriate to draw the lines so long.

6) in the cox analysis GFR and kidney length is included, what about usual progression promoters ? are they also included, and if not will kidney length remain significant after adjustment for those?

7) could you provide information regarding treatment of hypertension in the patients?

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests'