Reviewer's report

Title: Clinical features and survival of a large cohort of ADPKD patients receiving renal replacement therapy

Version: 1  Date: 2 June 2013

Reviewer: Vincenzo Bellizzi

Reviewer's report:

In this manuscript Dr Martinez and colleagues present registry data on a large population of patients starting RRT in Catalonia along a prolonged period of time. Authors focused their work on patients affected by ADPKD. The topic should be of some interest, however the analyses seem not to be adequate to fully support the conclusions drawn by the Authors.

Comments

1. The Authors in the introduction discuss on characteristics, and mainly genetic characteristics, of ADPKD, but clear information on ADPKD epidemiology lack. This point, which is the aim of the study, has to be well introduced.

2. The Authors look for changes of ADPKD at start RRT over time, but this aim is too generic and it has to be better defined and argued (i.e. changes of patients characteristics and why they are expected – why it is expected changes of age/gender for a genetic disease?; changes of modifiable CV risk factors – namely hypertension, and why; changes of RRT modalities – namely vascular access, type of RRT; changes in survival and why; etc.).

3. ANOVA cannot be used to compare gender differences.

4. The paragraph “Limitation” is useless since it refers to implicit characteristics of a registry study.

5. Hypertension has to be defined.

6. Authors aim at evaluating ADPKD changes over time, but they report only data on age and gender at RRT start over the three periods of time. To explore this aim all the data for different periods have to be analysed.

7. Sometimes along the paper incidence and prevalence data have been mixed; they have to be separate and the latter have to be reported for different periods in order to obtain information of some clinical relevance.

8. A major drawback in the comparison of either comorbid disease profile or outcome among ADPKD and controls is the different age at start. Conclusions of the paper on both the reduced comorbidities and the lower death rate in ADPKD is not supported by data. The lower prevalence of CV risk factors in ADPKD at RRT start is entirely explained by age. As well, the longer survival of ADPKD during the first three years of RRT is not reliable, being associated with different age at start of RRT. Indeed, at the time of death both the age and the comorbidities were the same among groups. Overall, in contrast with Author's
conclusions, groups seem not to differ for this characteristics. More adequate statistical analyses have to be applied to overcome this bias (i.e. case-control comparison; adjusted model for potentially confounders; etc.).

9. Authors discuss on a possible improvement of CV risk factors in ADPKD over time and the related effect on outcome. It would be interesting to explore changes of hypertension – likely the unique modifiable CV risk factor in this setting of patients – at start of RRT over time and the impact on patient outcome.

**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'