Reviewer’s report

Title: The effects of add-on corticosteroids on renal outcomes in patients with biopsy proven HIV associated Nephropathy: A single centre study from South Africa.

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Reviewer: Jeremy Levy

Reviewer's report:

Overall this is an interesting study on the potential role for steroids in treatment if HIVAN in addition to ART, in South Africa. The study shows possible improved kidney function but increased deaths in steroid treated patients.

It is well written, clear, but I have some major concerns

Most importantly the full data set submitted is NOT anonymised (contains personal information: first names, date of diagnosis and hospital numbers) and must be removed immediately, and if submitted names and dates and hospital identifiers removed. Patients should just have a unique identifier with no link to a hospital number in such submitted data. This is a very significant concern over confidential data handling

Patients are defined as "HIV positive" but I am not clear how this was defined: this needs a formal definition.

The Primary outcome is defined as "improved GFR" but nowhere does any data state results by primary outcome, and of course this is far too vague? Was there a definition of "improved"? by what amount? Similarly a primary outcome of "proteinuria reduced" - by home much?

Can the authors provide in the paper a brief explanation for the variation in ART regimen. Was this just change over time, or were specific regimens used in different circumstances
Sealed envelope is not a good randomisation method, and this may have led to the poor randomisation (for eGFR): clearly this cannot be changed now but this does jeopardise the meaningfulness of the results.

The randomisation in the end was poor since much worse kidney function in ART-C group.

Was the reported eGFR race corrected? I'm assuming all patients were likely black but even so this might alter the statistics.

The actual analysis does not ever give an outcome for these poorly defined "primary outcomes". How many patients in each gp did achieve these? Was this Stat significant (I doubt it). Clearly it is too late to retrospectively define the primary outcomes but then an analysis using even the weak terms as stated needs to be included.

Results are primary analysed as Baseline to 24 months, and although the graphs in the figure show all GFR results, it would be good to include an analysis at 6 months when the steroids ended sim to Table 3.

I am slightly surprised that the patients, all of whom had HIVAN, were not very hypertensive and had low levels of proteinuria (mean BP 118/74) (mean proteinuria 0.35 g/mmol): the authors should comment on this and may wish to offer an explanation.

It would be helpful to state the actual mean eGFR at 2 years in both groups.

It would be good to have a Kaplan Maier for doubling of creatinine or ESRD in both groups (ie renal survival) as well as the patient survival K-M analysis.

TB treatment occurred in many more of those in ART-C - BUT if it included rifampicin (which is likely) this is a potent enzyme inducer and reduces the effectiveness of corticosteroids .. did the authors adjust steroid dosing for those on rifampicin? If not why? This should be commented on at the least. Can the data be analysed for those patients NOT receiving anti-TB drugs?
Is there any difference in outcome if the authors analyse those patients with milder or more severe renal disease/dysfunction? Eg GFR < or > 30 ml/min

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

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