Reviewer's report

Title: Increased peritoneal permeability at peritoneal dialysis initiation is a potential cardiovascular risk in patients using biocompatible peritoneal dialysis solution

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Reviewer: Mariano Feriani

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Discretionary Revisions

This paper is a new contribution to the controversial question whether peritoneal membrane permeability influences outcomes in PD patients. The Authors focused particularly on cardiovascular events but also patient's survival and technique survival were analyzed.

The novelty is the use of a biocompatible PD fluid. The expectation that BPDF could favorably influence CV events and patients survival was recently denied by a metaanalysis, also quoted by the Authors, and this hypothesis is not an issue of this paper.

Reference 21 shows a similar retrospective study with the conventional fluid, with a double number of patients but with the opposite results: CV events were similar in percentage but equally distributed among the permeability categories, also survival was statistically the same in the different categories.

I think the explanation could be in the different categorization of the permeability class. The large majority of patients in this study were LA, while in the quoted study HA. Probably genetic characteristics of population (multiethnics Canadian and Japanese) could play a role in this. I am wondering if the Authors collect together L and LA instead of H and HA (as it has be done by the Canadian study) which kind of results they would obtain (it could be interesting to see).

The last remark is the choice of adjustments in the Cox models, why do not adjust also for CVD before PD initiation, Hemoglobin, and CRP?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests