Reviewer’s report

Title: Elevated soluble cellular adhesion molecules are associated with increased mortality in a prospective cohort of renal transplant recipients

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Reviewer: Daniela Kniepeiss

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The presented study reports an observational prospective cohort trial which aimed to assess the prognostic value of soluble cellular adhesion molecules for the cardiac survival prognosis in patients following kidney transplantation.

Major Revisions:

No exclusion criteria have been stated for the presented trial. All patients included were in different stages after kidney transplantation. Although the authors state that the majority of patients had received their graft prior to 12 months to inclusion in the study nothing is said about exact time points.

All patients - regardless to their time point of transplantation - were analysed together. Patients in the long term follow up after kidney transplantation have higher incidences for cardiac events than patients in advance to that time period.

Nothing is stated about the time the recipients included into the study were dialysed. It is known that hemodialysis itself increases the risk for cardiovascular mortality. This has completely been excluded in this study. Did the authors observe any differences in their patient cohort - did they even perform a sub analysis for this? If done so, please include it in the study presentation.

The creatinine detection range seems rather high. In their inclusion criteria the investigators state that only patients with stable renal function have been included into the study. In their Methods section they state that creatinine detection ranged from 4 - 1238 µg/L throughout the study. This would be 0.045-14.06 mg/dL. I wonder if this is true and if it is, renal function of those patients can surely not be considered as stable. Please confirm or correct this.

The renal function of the presented patients is only presented through the GFR measurement inside the tables, serum Creatinine values are missing completely, please add them.

Nothing is stated about the development of renal failure among the recipients followed throughout the follow up period. As the follow up was rather long, I wonder if all recipients still had stable renal function at the end of the follow up time.

The authors used HDL cholesterol, blood pressure, smoking, diabetes and eGFR
in addition to their soluble cellular adhesion molecules as parameters for the prediction of a cardiac event. Nothing is stated about commonly used cardiac parameters like ntproBNP (Brain natriuretic Peptide), OPG (Osteoprotegerin), sRANKL or ANP (Aminonatriuretic Peptide) and their relation to the findings. At the moment, especially elevated nt pro BNP is considered as reliable parameter for cardiovascular diseases. As all patients had stable renal function an analysis including this parameters is mandatory to my opinion.

I really think that this study is of interest and that the parameters evaluated can potentially have a prognostic value for the prognosis of cardiovascular diseases in patients after liver transplantation, but I am not able to recommend it for acceptance until the upper mentioned issues have not been clarified by the submitting scientist.

**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 do not have competing interests