Reviewer's report

Title: Relationship between Sclerostin and Cardiovascular Calcification in Hemodialysis Patients: A cross-sectional study

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Reviewer: Alexander Rosenkranz

Reviewer's report:

This is a cross-sectional study evaluating coronary calcification in association with sclerostin, a regulator of osteoblast activity and bone turnover. The authors found a strong association between sclerostin levels in the plasma and coronary calcification. In addition, sclerostin expression was significantly upregulated in calcified valves from dialysis patients.

Comments to the authors:

This is a nicely conducted and evaluated descriptive study on vascular calcification in dialysis patients. The authors hypothesize that sclerostin, recently described as a marker of low turn-over bone disease in CKD5D patients (Cejka et al) could also play a role in the development of vascular calcification. Since they provide indirect evidence for their hypothesis, this further supports their idea, but studies with direct evidence will have to be pursued before a definite conclusion can be drawn.

Major comments

*) I have only one major comment: the findings are somehow overshadowed by the fact that they cannot support their own previous findings on biomarkers for vascular calcification (e.g. fetuin A; Westenfeld et al, JASN 2009). At least one biomarker associated with vascular calcification pointing in the same direction as other studies should be presented and would support their data shown in this study.

Minor comments

*) the difference in the sclerostin levels (by about 20%) to other papers (Cejka et al) – is this explained by dialysis vintage or age of the patients?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.