



NEWS

**European Renal Association -
European Dialysis and Transplant Association**

Circulating Sclerostin: A New Parameter of Cardiovascular Risk in CKD-Patients

2 February 2015

Chronic Kidney Disease (CKD) is an important risk factor for cardiovascular disease. A significantly higher cardiovascular risk has even been identified for minor renal dysfunction [1] – and dialysis patients are at a very high risk: it is well known that the cardiovascular risk of patients with End Stage Renal Disease (ESRD) is increased about 20- to 30-fold compared to people with normal kidney function [2].

Numerous studies have revealed an association between poor patients' outcome and deranged circulating bone biomarkers in ESRD like FGF23, PTH or alkaline phosphatase. A novel factor involved in the so-called bone-vascular axis is sclerostin. A French study [3] has shown that sclerostin increases with the severity of CKD. The aim of the NECOSAD study, an observational prospective follow-up study in ESRD patients in The Netherlands, was to assess the effect of circulation sclerostin levels on mortality.

The study that is published in the February edition of NDT [4] shows that high levels of sclerostin were associated with lower short-term cardiovascular mortality in 2,021 dialysis patients. This association remained strong and significant even after adjustments for a wide range of potential cofounders. After 18 months, cardiovascular mortality was 70% lower in patients of the highest tertile of sclerostin compared with patients of the lowest tertile. This correlation was especially striking, because the patients in the highest sclerostin tertile turned out to be older and had a higher comorbidity index.

"According to this study sclerostin is a significant marker and strong predictor of short term cardiovascular risk in ESRD patients", comments Prof. Carmine Zoccali, NDT Editor-in-Chief. "It might be helpful to stratify patients at high risk, although further studies will still have to prove if sclerostin measurements can improve the outcome of our patients. Another field of research will be if therapeutic alteration of sclerostin levels may add to reduce cardiovascular mortality. We have to find out if sclerostin is a marker or also a potential therapeutic target."

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- [1] Go AS et al. N Engl J Med 2004; 351: 1296-305
- [2] Foley RN et al. Am J Kidney Dis 1998; 32 (5 suppl3): S112-9
- [3] Pelletier S et al, CJASN 2013; 8: 819
- [4] Drechsler C et al. NDT 2015

About ERA-EDTA

With more than 7,000 members, the ERA-EDTA ("European Renal Association – European Dialysis and Transplant Association") is one of the biggest nephrology associations worldwide and one of the most important and prestigious European Medical Associations. It supports basic and clinical research in the fields of clinical nephrology, dialysis, renal transplantation and related subjects. The ERA-EDTA supports a number of studies as well as research groups and has founded a special "Fellowship Programme" for young investigators as well as grant programmes. In order to involve young nephrologists in all activities of the ERA-EDTA the Council decided to create a Young Nephrologists' Platform (YNP). Besides, it has established various research networks and different working groups to promote the collaboration of nephrologists with other medical disciplines (e.g. cardiology, immunology). Furthermore, a "European Renal Best Practice" (ERBP) advisory board has been established by the ERA-EDTA to draw up and publish guidelines and position statements. Another important goal of the ERA-EDTA is education: several series of CME-courses as well as the annual congress offer an attractive scientific programme to cover the need of continuous medical education for doctors working in the fields of nephrology, dialysis and transplantation. The association's journals, NDT (Nephrology, Dialysis, Transplantation) and CKJ (Clinical Kidney Journal), are currently the leading nephrology journals in Europe. The ERA-EDTA Registry is a large epidemiologic database comparing countries by assessing nephrology practice throughout Europe. Finally, ERA-EDTA is member of the European Kidney Health Alliance (EKHA), a consortium of renal societies that actively interacts with the European Parliament. For more information please visit www.era-edta.org