Sclerostin: a biomarker for chronic kidney disease and vascular disease with added or independent value?

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Editor,

Many studies through the previous and the current decade implicate that bone and mineral abnormalities in chronic kidney disease (CKD) may contribute to the presence of vascular disease (VD), with the most likely link being the presence of vascular calcification [1]. Sclerostin is one of these biomarkers, aptly named, as the link between bone and vascular disease [2].

In a recent study by Figurek and Spasovski, a trend of declining sclerostin levels emerges in patients with CKD and significantly higher carotid intima-media thickness (CIMT) levels [3]. However, it is important to note that serum sclerostin was not associated with CIMT [3]. Furthermore, Kanbay's meta-analysis demonstrated no association between serum sclerostin levels and all-cause as well as cardiovascular mortality [4].

Multiple regression analysis that included sex, glomerular filtration rate (GFR), age, body mass index, serum calcium and serum phosphorus indicated that GFR, gender and serum phosphate were associated with serum sclerostin [5]. Other researchers have reported that serum sclerostin increases with ageing [6].

Ageing, on the other hand, is an independent risk factor for VD, measured as CIMT and carotid plaques. Studies on general and diabetic populations reveal these results [7, 8].

This begs the following question: whether sclerostin has an independent or an added value to the process of ageing,

in vascular disease, when measured with carotid ultrasound? Could authors possibly give an answer?

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