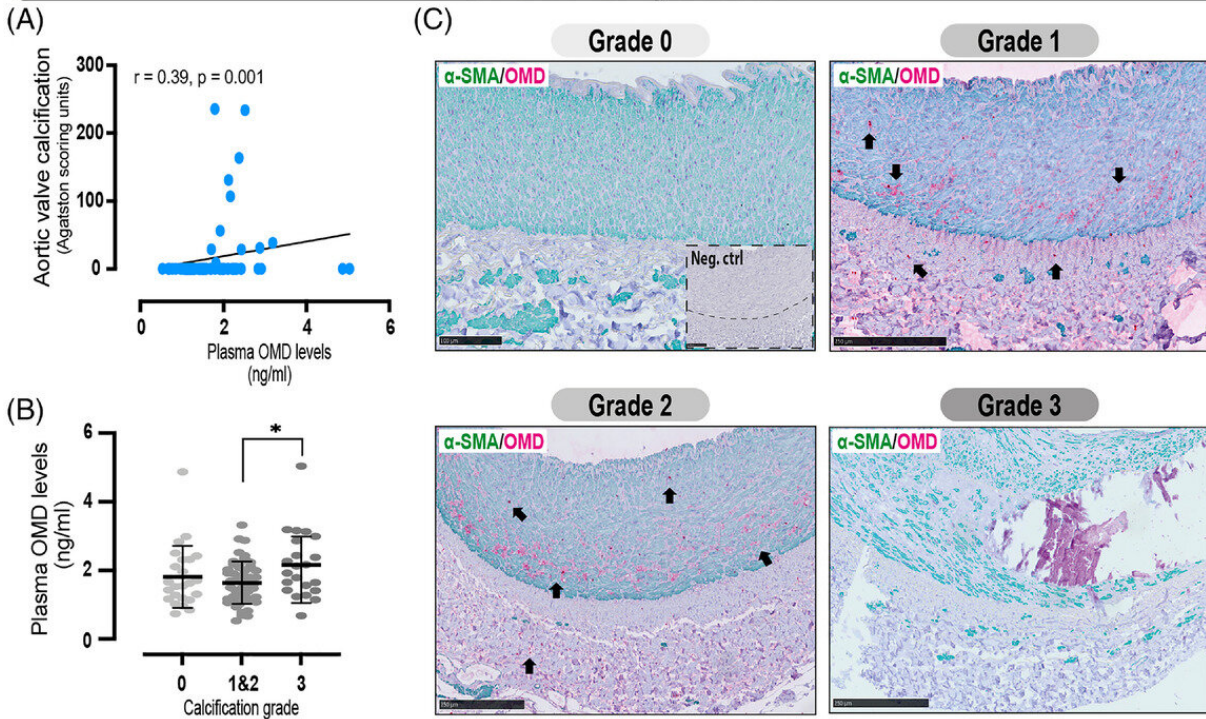


Osteomodulin is a novel biomarker of vascular calcification

February 24 2022

Chronic kidney disease



Calcific aortic valve disease

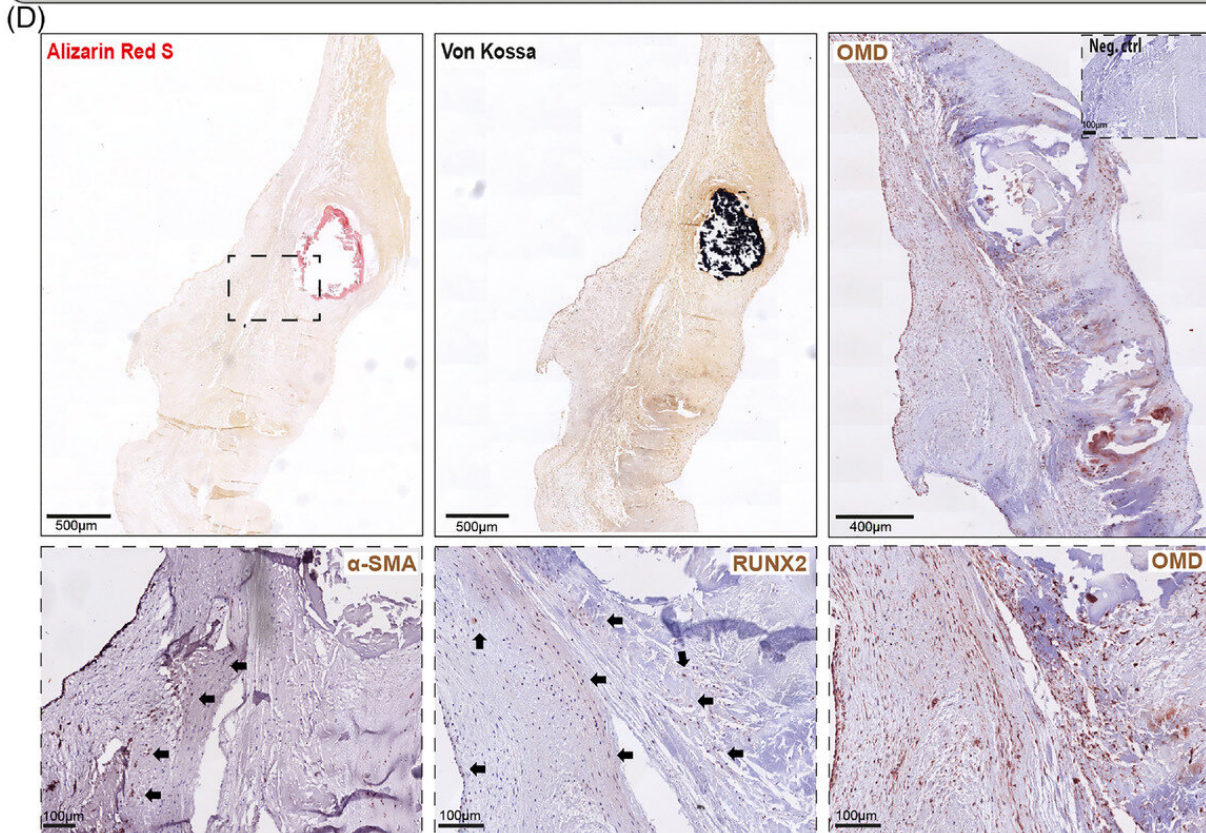


Figure 1. Plasma and tissue osteomodulin (OMD) protein analyses in chronic kidney disease (CKD) and calcific aortic valve disease (CAVD) patients. (A) Spearman correlation between plasma OMD levels and aortic valve calcification (in Agatston scoring units) in CKD patients (n = 65). (B) OMD protein measurements in plasma from CKD patients stratified in groups according to the medial calcification grade/score (CS) of epigastric arteries from these patients (ranging from 0 to 3, where 0 signifies no arterial calcification, 1 and 2 refer to moderate calcification and 3 refers to extensive arterial calcification). Number of patients per group: n = 25 for CS = 0, n = 25 for CS = 1, n = 24 for CS = 2, n = 24 for CS = 3. One-way ANOVA multiple comparison test; data presented as mean with SD. (C) Representative histological images of epigastric arteries from CKD patients with the four different grades of calcification, immunostained for OMD (red signal) and α -SMA (green). Arrows point to OMD positive signal in the tissues. (D) Representative images from consecutive human aortic valve leaflet slides stained with Alizarin red and von Kossa to visualize calcification, or immunostained for α -SMA, OMD and RUNX2. Scale bar as indicated in all images. Insets show corresponding isotype negative control. Differences between groups were considered significant at p-values

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