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## Vascular calcifications in CKD and hemodialysis patients with HCV infection: Could it be reversible?

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Vascular calcification has emerged as an independent risk factor for cardiovascular morbidity and mortality, especially in chronic kidney disease. Vascular mineralization is a process in which mineral is pathologically deposited in blood vessels, mainly in large elastic and muscular arteries such as the aorta, coronaries, and carotid and peripheral arteries. In the general population, the amount of vascular calcification, as measured and quantified by multi-slice computed tomography, is an important predictor of all-cause mortality, vascular complications, and myocardial infarction. The prevalence of both cardiovascular mortality and vascular calcification is much higher in patients with chronic kidney disease (CKD) than in the general populations. Patients with CKD are arteriosclerosis, characterized by arterial stiffening and calcification, altered left ventricular diastolic function, and left ventricular hypertrophy. Atherosclerotic plaque formation often occurs later or in parallel with initial cardiovascular changes aggravated by CKD. For decades vascular calcification was regarded as a passive process, an inevitable consequence of aging and disease. Understanding the molecular mechanisms that lead to accelerated vascular calcification in patients with CKD is of great importance in limiting vascular calcification and subsequently mortality. Some two-thirds of patients with early stages of CKD have mild coronary calcification, whereas one-third has severe coronary calcification. The active inhibition process involves vascular smooth muscle cells and a number of proteins, including some that are vitamin K-dependent. Calciphylaxis is a rare complication in CKD patients. Cases of calciphylaxis have been reported as occurring in the absence of hyperparathyroidism. In the presented case a CKD patient with HCV infection is suffering from vascular calcifications and on warfarin, she developed calciphylaxis. With ongoing in the case, surprises occur after administration of vitamin K.

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