

INSIGHTS INTO THE METABOLISM AND CLINICAL SIGNIFICANCE OF VITAMIN K IN UREMIA: MORE THAN A SUPPLEMENT?

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Vascular calcification (VC) is a common manifestation of the enhanced Cardiovascular (CV) disease that is observed in Chronic Kidney Disease (CKD). Although the pathogenesis of VC is very complex, recently it became evident that it is the result of the imbalance between calcification promoters and inhibitors, in favor of the former. Matrix Gla Protein (MGP), a powerful inhibitor of VC depends on vitamin K to be fully activated. Epidemiologic data suggest that vitamin K deficiency is highly prevalent in CKD even at the early stages of the disease and correlates tightly with CV outcomes. In animal models, supplementation of vitamin K was accompanied with regression of VC, through activation of MGP. In this review, we aimed to present the existing data regarding the effect of vitamin K supplementation on VC and CV outcome in uremic patients.

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