Vitamin D deficiency and cardiovascular disease: Is there a role for vitamin D therapy in heart failure?

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Abstract
Accumulating evidence suggests that vitamin D deficiency is associated with cardiovascular disease, and that vitamin D therapy may have significant mortality and morbidity benefits in the treatment of congestive heart failure. However, the potential protective role of vitamin D in the heart, as well as the mechanism of action of the hormone in this organ, are poorly understood. In this review, the potential mechanisms of action of vitamin D in cardiac dysfunction are discussed, and the experimental and clinical findings that provide evidence for a role of vitamin D in the treatment of cardiovascular diseases are reviewed. Accumulating evidence suggests that vitamin D deficiency is associated with cardiovascular disease, and that vitamin D therapy may have significant mortality and morbidity benefits in the treatment of congestive heart failure. However, the potential protective role of vitamin D in the heart, as well as the mechanism of action of the hormone in this organ, are poorly understood. In this review, the potential mechanisms of action of vitamin D in cardiac dysfunction are discussed, and the experimental and clinical findings that provide evidence for a role of vitamin D in the treatment of cardiovascular diseases are reviewed.

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