

Abstract

Nutr Metab Cardiovasc Dis. 2010 Nov;20(9):627-32.

Should vitamin D status be assessed in patients with congestive heart failure?

Rendina D, De Filippo G, Strazzullo P.

Department of Clinical and Experimental Medicine, Federico II University of Naples Medical School, Naples, Italy.

BACKGROUND: For decades the vitamin D biological system has been considered almost exclusively as the master integrator of calcium-phosphate homeostasis and bone metabolism. More recently, the discovery that many human tissues and cells, which do not directly participate in mineral ion homeostasis, express the vitamin D receptor (VDR) and are able to convert the circulating pro-hormone 25-hydroxyvitamin D in its active form, 1,25-dihydroxyvitamin D, has provided new insights into the biological function of this peculiar endocrine system.

FINDINGS: Several reports have highlighted a variety of human diseases possibly related to vitamin D insufficiency or deficiency (respectively defined as 25-hydroxyvitamin D serum levels lower than 30 or lower than 20 ng/ml). In particular, experimental and observational studies, including those published in this journal issue, support the concept that vitamin D deficiency is involved in the pathogenesis of congestive heart failure, a disabling condition affecting over 15 million of patients worldwide.

CONCLUSIONS: Considering that circulating levels of 25-hydroxyvitamin D represent the accepted clinical indicator of individual vitamin D status, the measurement of this pro-hormone can be regarded as an appropriate and cost-effective screening tool in patients with chronic heart failure.

PMID: 20947319

