

Abstract

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Role of marginal vitamin C deficiency in atherogenesis: in vivo models and clinical studies.

Frikke-Schmidt H, Lykkesfeldt J.

Section of Biomedicine, Department of Disease Biology, Faculty of Life Sciences, University of Copenhagen, Frederiksberg C, Denmark.

BACKGROUND: Vitamin C is a pivotal redox modulator in many biological reactions of which several remain poorly understood. Naturally, vitamin C has been the subject of many investigations over the past decades in relation to its possible beneficial effects on cardiovascular disease primarily based on its powerful yet general antioxidant properties.

DISCUSSION: However, growing epidemiological, clinical and experimental evidence now suggests a more specific role of ascorbate in vasomotion and in the prevention of atherosclerosis. For example, in contrast to most other biological antioxidants, administration of vitamin C can apparently induce vasodilation. Millions of people worldwide can be diagnosed with vitamin C deficiency according to accepted definitions.

SUMMARY: In this perspective, the present review examines the evidence for a specific link between vitamin C deficiency and increased risk of atherosclerosis as well as the possible mechanisms by which vitamin C may exert its protective function.

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