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Role of vitamin d supplementation in hypertension.

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Source

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Abstract

Role of Vitamin D supplementation was studied in patients with hypertension. One hundred hypertensive patients (group I) were given conventional antihypertensive drugs while another 100 patients (group II), in addition, were supplemented with Vitamin D(3) (33,000 IU, after every 2 weeks, for 3 months). Besides diastolic and systolic blood pressure, serum calcium, phosphorous, alkaline phosphatase, albumin, albumin-corrected calcium, and 24 h urinary creatinine levels were estimated in both the groups before the start of treatment and after 3 months. Vitamin D supplementation showed a more significant decrease in systolic blood pressure. This group also showed a significant increase in serum calcium as well as albumin-corrected calcium with a decrease in phosphorous. Results of the study confirm that Vitamin D supplementation has a role in reducing blood pressure in hypertensive patients and that it should be supplemented with the antihypertensive drugs. More extensive studies with a larger group, to draw a definite conclusion, are in progress.

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Medication nonadherence: an unrecognized cardiovascular risk factor.

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Source

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Abstract

Nonadherence with prescribed drug regimens is a pervasive medical problem. Multiple variables affecting physicians and patients contribute to nonadherence, which negatively affects treatment outcomes. In patients with hypertension, medication nonadherence is a significant, often unrecognized, risk factor that contributes to poor blood pressure control, thereby contributing to the development of further vascular disorders such as heart failure, coronary heart disease, renal insufficiency, and stroke. Analysis of various patient populations shows that choice of drug, use of concomitant medications, tolerability of drug, and duration of drug treatment influence the prevalence of nonadherence. Intervention is required among patients and healthcare prescribers to increase awareness of the need for improved medication adherence. Within this process, it is important to identify indicators of nonadherence within patient populations. This review examines the prevalence of nonadherence as a risk factor in the management of chronic diseases, with a specific focus on antihypertensive medications. Factors leading to increased incidence of nonadherence and the strategies needed to improve adherence are discussed. Medication nonadherence, defined as a patient's passive failure to follow a prescribed drug regimen, remains a significant concern for healthcare professionals and patients. On average, one third to one half of patients do not comply with prescribed treatment regimens.[1-3] Nonadherence rates are relatively high across disease states, treatment regimens, and age groups, with the first several months of therapy characterized by the highest rate of discontinuation.[3] In fact, it

has recently been reported that low adherence to beta-blockers or statins in patients who have survived a myocardial infarction results in an increased risk of death.[4] In addition to inadequate diseasecontrol, medication nonadherence results in a significant burden to healthcare utilization - the estimated yearly cost is $396 to $792 million.[1] Additionally, between one third and two thirds of all medication-related hospital admissions are attributed to nonadherence.[5,6]Cardiovasculardisease, which accounts for approximately 1 million deaths in the United States each year, remains a significant health concern.[7] Risk factors for the development of cardiovascular disease are associated with defined risk-taking behaviors (eg, smoking), inherited traits (eg, family history), or laboratory abnormalities (eg, abnormal lipid panels).[7] A significant but often unrecognized cardiovascular risk factor universal to all patient populations is medication nonadherence; if a patient does not regularly take the medication prescribed to attenuate cardiovascular disease, no potential therapeutic gain can be achieved. Barriers to medication adherence are multifactorial and include complex medication regimens, convenience factors (eg, dosing frequency), behavioral factors, and treatment of asymptomatic conditions.[2] This review highlights the significance of nonadherence in the treatment of hypertension, a silent but life-threatening disorder that affects approximately 72 million adults in the United States.[7] Hypertension often develops in a cluster with insulin resistance, obesity, and hypercholesterolemia, which contributes to the risk imposed by nonadherence with antihypertensive medications. Numerous strategies to improve medication adherence are available, from enhancing patient education to providing medication adherence information to the healthcare team.

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Functional foods for dyslipidaemia and cardiovascular risk prevention.

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Source

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Abstract

A food can be regarded as 'functional' if it can demonstrate a beneficial efficacy on one or more target functions in the body in a convincing way. Beyond adequate nutritional qualities, functional foods should either improve the state of health and wellbeing and/or reduce the risk of disease. Functional foods that are marketed with claims of heart disease reduction focus primarily on the major risk factors, i.e. cholesterol, diabetes and hypertension. Some of the most innovative products are designed to be enriched with 'protective' ingredients, believed to reduce risk. They may contain, for example, soluble fibre (from oat and psyllium), useful both for lowering cholesterol and blood pressure, or fructans, effective in diabetes. Phytosterols and stanols lower LDL-cholesterol in a dose-dependent manner. Soya protein is more hypocholesterolaemic in subjects with very high initial cholesterol and recent data indicate also favourable activities in the metabolic syndrome. n-3 Fatty acids appear to exert significant hypotriacylglycerolaemic effects, possibly partly responsible for their preventive activity. Dark chocolate is gaining much attention for its multifunctional activities, useful both for the prevention of dyslipidaemia as well as hypertension. Finally, consensus opinions about tea and coffee have not emerged yet, and the benefits of vitamin E, garlic, fenugreek and policosanols in the management of dyslipidaemia and prevention of arterial disease are still controversial.