Abstract

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Daily supplementation with (n-3) PUFAs, oleic acid, folic acid, and vitamins B-6 and E increases pain-free walking distance and improves risk factors in men with peripheral vascular disease.

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BACKGROUND: A number of nutrients are known to be effective in preventing cardiovascular disease (CVD). We investigated the possible effects of a daily intake of low amounts of these nutrients on risk factors and clinical parameters in patients with peripheral vascular disease and intermittent claudication (PVD-IC).

METHODS: Male PVD-IC patients (n = 60) were randomly allocated into 2 groups. The supplement (S) group consumed 500 mL/d of a fortified dairy product containing eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), oleic acid, folic acid, and vitamins A, B-6, D, and E. The control (C) group consumed 500 mL/d of semiskimmed milk with added vitamins A and D. The patients received lifestyle and dietary recommendations, and they were instructed to consume the products in addition to their regular diet. Blood extractions and clinical explorations were performed after 0, 3, 6, 9, and 12 mo.

RESULTS: Plasma concentrations of EPA, DHA, oleic acid, folic acid, and vitamins B-6 and E increased after treatment with supplements ($P < 0.05$). Plasma total cholesterol and ApoB concentrations decreased in the S group, and total homocysteine decreased in those patients with high initial concentrations. Walking distance before the onset of claudication increased in the S group ($P < 0.001$), and ankle-brachial pressure index values increased ($P < 0.05$).

CONCLUSION: The inclusion in the everyday diet of certain nutrients known to promote cardiovascular health improved clinical outcomes while reducing a variety of risk factors in men with PVD-IC, providing new evidence of the potential role of nutrition in the reduction of PVD-IC symptoms.

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