Effect of niacin on erectile function in men suffering erectile dysfunction and dyslipidemia.

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INTRODUCTION: Dyslipidemia is closely related to erectile dysfunction (ED). Evidence has shown that the lipid-lowering agent, 3-hydroxy-3-methylglutaryl-coenzyme A reductase inhibitor (statins), can improve erectile function. However, information about the potential role of another class of lipid-lowering agent, niacin, is unknown.

AIM: To assess the effect of niacin alone on erectile function in patients suffering from both ED and dyslipidemia. METHODS: A single center prospective randomized placebo-controlled parallel-group trial was conducted. One hundred sixty male patients with ED and dyslipidemia were randomized in a one-to-one ratio to receive up to 1,500 mg oral niacin daily or placebo for 12 weeks. MAIN OUTCOME MEASURES: The primary outcome measure was the improvement in erectile function as assessed by question 3 and question 4 of the International Index of Erectile Function (IIEF Q3 and Q4). Secondary outcome measurements included the total IIEF score, IIEF-erectile function domain, and Sexual Health Inventory for Men (SHIM) score. RESULTS: From the overall analysis, the niacin group showed a significant increase in both IIEF-Q3 scores (0.53 1.18, P < 0.001) and IIEF-Q4 scores (0.35 1.17, P = 0.013) compared with baseline values. The placebo group also showed a significant increase in IIEF-Q3 scores (0.30 1.16, P = 0.040) but not IIEF-Q4 scores (0.24 1.13, P = 0.084). However, when patients were stratified according to the baseline severity of ED, the patients with moderate and severe ED who received niacin showed a significant improvement in IIEF-Q3 scores (0.56 0.96 [P = 0.037] and 1.03 1.20 [P < 0.001], respectively) and IIEF-Q4 scores (0.56 1.03 [P = 0.048] and 0.84 1.05 [P < 0.001], respectively) compared with baseline values, but not for the placebo group. The improvement in IIEF-EF domain score for severe and moderate ED patients in the niacin group were 5.28 5.94 (P < 0.001) and 3.31 4.54 (P = 0.014) and in the placebo group were 2.65 5.63 (P < 0.041) and 2.74 5.59 (P = 0.027), respectively. There was no significant improvement in erectile function in patients with mild and mild-to-moderate ED for both groups. For patients not receiving statins treatment, there was a significant improvement in IIEF-Q3 scores (0.47 1.16 [P = 0.004]) for the niacin group, but not for the placebo group. CONCLUSIONS: Niacin alone can improve the erectile function in patients suffering from moderate to severe ED and dyslipidemia. [ 2011 International Society for Sexual Medicine.].

Propionyl-L-carnitine, L-arginine and niacin in sexual medicine: a nutraceutical approach to erectile dysfunction.

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The application of nutraceuticals in the field of male sexual function--in particular for erectile dysfunction (ED)--remains relatively underexplored. In a group of 54 unselected
men (35-75 years), consecutively presenting to our ED clinic and naive to other ED treatments, we carried out a single-blind, one-arm study to evaluate the effects of a 3-month supplementation with propionyl-L-carnitine, L-arginine and niacin on their sexual performance. All patients had the short-international index of erectile function (IIEF) questionnaire, global assessment questions (GAQs) and routine laboratory testing, at baseline and 3 months afterward. 51 (92%) patients of 54 completed the entire study period. After 3 months of treatment, a small, but statistically significant improvement in total and single items of the IIEF was found (<= 5.7 4.1 P < 0.01). Analyses on GAQs revealed that treatment improved erections in 40% of cases, with a partial response occurring in up to 77% of subjects enrolled. These preliminary findings indicate that the favourable cardiovascular effects of nutraceuticals might also reflect on male sexual function with possible implication in the treatment and prevention of ED. This study documents a considerable patient's interest toward nutritional supplementation--as first-line or adjunctive treatment to PDE5 inhibitors--that goes beyond the measurable increment in penile rigidity. [2011 Blackwell Verlag GmbH.]

**A meta-analysis of randomized controlled studies on the effects of extended-release niacin in women.**

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The present meta-analysis pooled data from 5 double-blind, placebo-controlled studies in 432 patients with dyslipidemia treated with various doses of extended-release niacin. Data were analyzed for possible gender differences in response to treatment. At all doses, mean decreases in low-density lipoprotein cholesterol were greater in women than in men; differences were significant at doses of 1,000 mg (6.8% vs 0.2%, p = 0.006), 1,500 mg (11.3% vs 5.6%, p = 0.013), 2,000 mg (14.8% vs 6.9%, p = 0.010), and 3,000 mg (28.7% vs 17.7%, p = 0.006). Decreases in triglyceride levels also tended to be greater in women than in men but reached significance only at the 1,500-mg dose (28.6% vs 20.4%, p = 0.040). No similar trends or significant gender differences were noted in levels of lipoprotein(a) and high-density lipoprotein cholesterol. This meta-analysis confirms that women respond as well as men, and possibly slightly better, to treatment with extended-release niacin and that it is a safe and effective treatment option for women with dyslipidemia.