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


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OBJECTIVE: The application of nutraceuticals in the field of male sexual function - in particular for erectile dysfunction (ED) - remains relatively under-explored.

METHODS: 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.

RESULTS: 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 statistical significant improvement in total and single items of the IIEF was found ($\Delta = 5.7 \pm 4.1 \ P < 0.01$). Analyses on GAQs revealed that treatment improved erections in 40% of cases, with a partial response occurring in up to 77% of enrolled subjects. 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.

CONCLUSIONS: This study documents a considerable patients’ interest toward nutritional supplementation - as first-line or adjunctive treatment to PDE5 inhibitors - that goes beyond the measurable increment in penile rigidity.

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