The effect of simvastatin in penile erection: a randomized, double-blind, placebo-controlled clinical trial (Simvastatin treatment for erectile dysfunction-STED TRIAL).

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Abstract

The aim of the study is to evaluate the effect of simvastatin in erectile dysfunction (ED) secondary to endothelial dysfunction. This study is a double-blind, randomized, placebo-controlled, clinical trial in patients with ED and endothelial dysfunction. Patients were randomized to receive 20 mg simvastatin (n = 21) or placebo (n = 20) daily for 6 months and subsequently 10 mg of vardenafil on demand for 4 weeks. Serum cholesterol, hormone profile, ultrasensitive C-reactive protein, the International Index of Erectile Dysfunction (IIEF) and the ED Index of Treatment Satisfaction were evaluated. There was a significant reduction in serum cholesterol in the treatment group. The hormonal profile remained unaltered. There was no difference in the IIEF between the groups at follow-up, although, at the beginning, 26% of the patients of both groups presented with mild ED and 74% with moderate-to-severe ED; at the end of the 7th month, all patients from the simvastatin group progressed to mild ED, compared with only 83% in the placebo group. There was no statistically significant difference in penile erection after intake of simvastatin or placebo. This study does not support the use of simvastatin as erectogenic medication. Further studies are necessary to verify if simvastatin has any beneficial effect on ED.

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