Efficacy of lower limb compression in the management of vasovagal syncope--randomized, crossover study.
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Abstract
Vasovagal syncope (VS) is the most prevalent cause of transient loss of consciousness. The treatment consists of lifestyle modifications and pacemaker in some patients. The purpose of this study is to evaluate the effect of measures to compress the lower limbs in patients with recurrent episodes of VS submitted to the tilt-test (TT).

METHODS AND RESULTS: Twenty patients, average age 30.5 years (15-75), 13 (65%) female, with a clinical diagnosis of VS and previous TT with a positive result and who had at least one episode of syncope during the last year, were included in this placebo-controlled randomized crossover study. The patients underwent two consecutive TT, at a 1-hour interval, with and without compression by pneumatic compression boots with 40 mmHg at the heels and 30 mmHg for the legs. The blood pressure (BP) and heart rate (HR) of these patients were monitored continuously. The outcome assessors were blinded. The results of the TT were positive in 13 (65%) of the patients in the control groups and in two (10%) of the patients with compression (P < 0.0001). Throughout the test, the systolic BP was not different among the groups. On the other hand, the HR measures showed a difference only in the tilted position at 2 minutes, of 73 ± 16 beats per minute (bpm) in the control group and of 69 ± 16 bpm (P = 0.047) in the compression group.

CONCLUSION: Compression of the lower limbs is very effective to render the TT negative in patients with a diagnosis of VS.

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