Effect of Virtual Visualization to Meditation on Psychological, Physiological and Biochemical Markers in Primary Hypertensive Patients

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Abstract

Background: The meditation-based interventions help patients with hypertension as one of the non-pharmacological interventions. Virtual Visualization to Meditation is a valid and feasible module developed for them.

Objective: The aim of this study is to analyze the effect of designed meditation module on biochemical, physiological and psychological parameters in primary hypertensive patients.

Methods: Seventy-two patients with primary hypertension were recruited and randomized into control and intervention group. The intervention was given to the intervention group for 12 weeks. For pre and post-test analysis 5 ml blood was collected for cortisol level analysis by Elisa method, autonomic function test was performed for physiological parameters and questionnaires for anxiety and stress analysis. A repeated measures ANOVA was done.

Results: There was statistically significant difference in cortisol levels (p<0.001), decrease in anxiety (p=0.077) and stress (p=0.015) between the two groups. An increase in cardiac autonomic function from 76 to 81% in the normal category and sympathetic balance from 67 to 72% in the intervention group was found.

Conclusions: The Virtual Visualization to Meditation module was found effective in decreasing the level of cortisol, anxiety, stress and improve autonomic functions and can be given to patients with hypertension for better management of it.

Keywords

Meditation-based Intervention, Hypertension, Autonomic Function Test, Cortisol.