ABSTRACT

Background: Cold spinal spray is one of the treatment modalities in hydrotherapy, which is commonly used by naturopathy physicians to manage and prevent various illness. The action of the cold spinal spray upon healthy individual and hypertensive might be different in manner. This study aimed to elucidate the immediate effect of cold spinal spray on blood pressure and heart rate variability in patients with hypertension.

Materials and Methods: A total of 100 male hypertension patients were randomly allocated into two groups: cold spinal spray group (CSS) and control group. Cold spinal spray (15°C) was given to CSS group for 20 minutes. Control group participants was made to lie on spinal spray tub without intervention for 20 minutes. Systolic blood pressure, diastolic blood pressure, and heart rate variability was assessed before and after 20 minutes of intervention. Pulse pressure and mean arterial pressure were derived by standard formula. Statistical analysis was performed by using R-statistical software.

Results & conclusion: The results showed 20 minutes of cold spinal spray reduces the SBP, DBP, MAP, PP, HR in intervention group, also increase in R-R interval, SDNN, RMSSD, and HF. Whereas, decrease in pNN50, NN50 and increased in LF/HF ratio and LF in study group. Hence the results of this study suggested that, 20 minutes of CSS could reduce the blood pressure via enhancing parasympathetic activity in male patients with hypertension. CSS could be an effective non-invasive and cost-effective technique for reducing blood pressure and its related complications in patient with hypertension.

Keywords: Hypertension, Cold spinal spray, Hydrotherapy, Heart rate variability