

Comparison of Computerized Dynamic Posturography and Functional Head Impulse Test Scores after of Hatha Yoga Practice and Resistance-Based Aerobic Exercise in Adult Female Yoga Practitioners

Authors : Çağla Aras, Kübra Binay, Aysberg Şamil önlü, Mine Baydan Aran, Dicle Aras

Abstract : The purpose of the present research was to investigate the acute effects of 30-min hatha yoga and 30-min resistance-based aerobic exercise (RBAE) on computerized dynamic posturography (CDP) and functional head impulse test (fHIT) scores in adult female yoga practitioners. To reach this aim, ten participants executed CDP and fHIT three times in total: at rest, after yoga, and after RBAE. The yoga practice lasted a total of 30 minutes, including 25 min of asanas and 5 minutes of savasana. RBAE lasted a total of 30 minutes with an intensity of 70-75% of the heart rate reserve method. When the results were examined, no change was observed in any parameters of the fHIT scores due to resting or exercise implementation. On the contrary, some changes were observed in CDP test results depending on the type of exercise. The post-RBAE somatosensory and visual systems values were higher than resting ($p<0.05$). The composite balance score derived after RBAE was found to be improved when compared to post-yoga and resting values ($p<0.01$). Lastly, the post-RBAE vestibular system score was found to be statistically significantly higher than the post-Yoga values. In addition, it was observed that body composition parameters, especially decreasing BW, LBM, PBF, MBF and TBW, were associated with improved postural stability values. According to the results, it can be stated that neither hatha yoga nor resistance-based aerobic exercise has an acute effect on functional vestibulo-ocular reflex. In addition, although there was no change in balance level after yoga, it was observed that RBAE performed at 70-75% of the heart rate reserve and for 30 minutes had positive acute effects on postural stability and balance.

Keywords : hatha yoga, resistance training, aerobic training, high intensity training, computerized dynamic posturography, functional head impulse test

Conference Title : ICKES 2024 : International Conference on Kinesiology and Exercise Sciences

Conference Location : Vienna, Austria

Conference Dates : June 20-21, 2024