

The effect of eight weeks combined resistance - endurance exercise training on serum levels of serotonin and sleep quality in menopausal women

malahat moazeni*,

The aim of the study was to determine the effect of eight weeks combined (resistance - endurance) exercise training on serum levels of serotonin and sleep quality in menopausal women. For this purpose, 22 sedentary postmenopausal women, with age 49-68, voluntarily participated in this study who were randomly assigned to two groups: experimental group (n=12) and control group (n=10). The exercise protocol consist of eight week for 90 minutes each session, control group had no exercise. weight, body mass index, body fat percentage, serum serotonin levels, sleep quality was measured before and after 8 weeks of training. Data were analyzed by kolmogorov-smirnov, independent t-test, u man vitny, paired t-test, wilcoxon with software spss(version 22). The results showed that in the experimental group, before and after combined exercise(endurance -resistive) the amount of the fat percentage ($p=0/000$), weight($p=0/002$), body mass index($p=0/002$) had significantly decreased. serum serotonin levels($p=0/013$) also increased significantly. Pittsburgh sleep quality was assessed by questionnaire, found significant improvements ($p=0/000$). During this period, no significant change was observed in the control group. Results showed that the experimental group compared to the pre-test and post-test data on the rate of fat percentage, body mass index and weight and the levels of serotonin and sleep quality was significantly improved.

Keywords : combined training, serotonin, postmenopausal women, the quality of sleep.