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The Effect of Eight Weeks of Aerobic Training on Indices of Cardio-Respiratory and Exercise Tolerance in Overweight Women with Chronic Asthma

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Abstract : Asthma, obesity and overweight are the main factors causing change within the heart and respiratory airways. Asthma symptoms are normally observed during exercising. Epidemiological studies have indicated asthma symptoms occurring due to certain lifestyle habits; for example, a sedentary lifestyle. In this study, eight weeks of aerobic exercises resulted in a positive effect overall in overweight women experiencing mild chronic asthma. The quasi-experimental applied research has been done based on experimental and control groups. The experimental group (seven patients) and control group (n = 7) were graded before and after the test. According to the Borg dyspnea and fatigue Perception Index, the training intensity has determined. Participants in the study performed a sub-maximal aerobic activity schedule (45% to 80% of maximum heart rate) for two months, while the control group (n = 7) stayed away from aerobic exercise. Data evaluation and analysis of covariance compared both the pre-test and post-test with paired t-test at significance level of P≤ 0.05. After eight weeks of exercise, the results of the experimental group show a significant decrease in resting heart rate, systolic blood pressure, minute ventilation, while a significant increase in maximal oxygen uptake and tolerance activity (P ≤ 0.05). In the control group, there was no significant difference in these parameters ((P ≤ 0.05). The results indicate the aerobic activity can strengthen the respiratory muscles, while other physiological factors could result in breathing and heart recovery. Aerobic activity also resulted in favorable changes in cardiovascular parameters, and exercise tolerance of overweight women with chronic asthma.

Keywords : asthma, respiratory cardiac index, exercise tolerance, aerobic, overweight
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