

The Comparison between Resistance and Aerobic Exercise Training on Metabolic Syndrome Components in Overweight Sedentary Female

Authors : Marzieh Sayyad, Mohsen Salehi

Abstract : Metabolic syndrome (MetS), a collection of cardiometabolic risk factors, is linked to the development of cardiovascular disease (CVD) and diabetes. The prevalence of MetS is on the rise with more women affected than men. The goal of this study was to compare the effects of resistance and aerobic exercise training on metabolic syndrome components in non-athlete, middle-aged woman. 51 non-athlete overweight female participated voluntarily in this study. Participants were divided randomly into three groups including resistance, aerobic and control group (number of each group 17). 24 hours before the beginning of training program, the blood sample was taken in fasting state. The two training groups participated in sport activities for eight weeks, three times a week duration 60-90 minutes. Two days following the end of the 8th week, all the measurements were performed similar to the pretest phase. The data was analyzed using one-way analysis of variance. The results showed that aerobic exercise training significantly decreased weight ($p=.05$), triglyceride ($p<0.01$) and systolic blood pressure ($p<0.02$) and HDL-c ($p<0.01$) was significantly increased. Also in resistance exercise training group TG decreased significantly ($p<0.01$) and HDL-c ($p<0.05$) was significantly increased. This study demonstrated that a regular physical activity program improved several metabolic and physiological parameters in healthy, previously sedentary subjects with the metabolic syndrome. In conclusion, it seems that this type of training can be efficient, safe and inexpensive way in order to reduce and prevent metabolic syndrome.

Keywords : aerobic exercise, metabolic syndrome, overweight sedentary female, resistance exercise

Conference Title : ICPESS 2016 : International Conference on Physical Education and Sport Science

Conference Location : Paris, France

Conference Dates : August 22-23, 2016