

Response of Selected Echocardiographic Features to Aerobic Training in Obese Hypertensive Males

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Abstract : The aim of this study was to investigate the effect of aerobic exercises on LV parameters, lipid profile, and anthropometric measurements in hypertensive middle aged male subjects. Thirty obese patients were recruited for the study from the outpatient clinic of National Heart Institute, Egypt. Their ages ranges from 40 to 60 years. All participants underwent an aerobic training program including regular aerobic sub-maximal exercises in the form of treadmill walking and abdominal exercises 3/week for four months, the exercise were individually tailored for each participant depending on the result of cardiopulmonary exercise test. The result showed no significant difference observed in both LVPWT and LVSWT data from pre-test values to post-test values in all subjects after 4 months, with a significant reduction in WHR, systolic blood pressure, TAG and LDL records. Result also revealed a significant increase in HDL, Ef, LVEDD and FS records for all participants. The significant improvement in ventricular functions in form of ejection fraction of electrical group more than exercise group after 4 months at the end of the study may be due to the beneficial effect of faradic stimulation in lipolysis of storage adipose tissues, stimulation of lean body mass and muscles and/or thermal effect that improves vascularization.

Keywords : left ventricular parameters, aerobic training, electrical stimulation, lipid profile

Conference Title : ICBB 2014 : International Conference on Bioinformatics and Biomedicine

Conference Location : Istanbul, Türkiye

Conference Dates : May 22-23, 2014