

activity and sport participation. Measurements were made during four consecutive days (every day, 10:00). At the 1st day, age (23.4 ± 1.8 years), height (173.2 ± 3.5 cm), weight (68.7 ± 4.1 kg) and pretest ECGs were recorded. Subjects performed PWC₁₉₅ test, Katch-McArdle step test and Astrand ergometer test at 2nd, 3rd and 4th days, randomly. Immediately after the tests, post-test ECGs were recorded. Data were analysed using paired-sample t test (for comparison between pretest and each of post-tests) and one-way analysis of variance (for comparison among post-tests). Statistical significances were accepted at $p < 0.001$ and $p < 0.05$. Analysis of data indicated that all of three tests had significant effects on ST segment voltage ($p < 0.001$). Also, there were no significant differences between mean ST segment voltages of post-tests ($p < 0.05$) (rest: 0.051 ± 0.019 , PWC₁₉₅ test 0.024 ± 0.012 , Katch-McArdle step test 0.024 ± 0.014 , Astrand ergometer test 0.024 ± 0.007 mv). Our findings suggest that submaximal short duration activities (and tests) statistically reduce the voltage of ST segment, but, these depressions are not pathologically significant, because they were less than 0.1 mv.

96 **A COMPARISON OF POSTERIOR WALL THICKNESS, INTERVENTRICULAR SEPTUM THICKNESS AND RELATIVE WALL THICKNESS OF LEFT VENTRICLE OF HEART IN MALE ATHLETES (BADMINTON AND KARATE) AND NON-ATHLETES**

Hasan Abdi, Alireza Hajjighasemi, Seyed Mostafa Tayebisany *Islamic Azad University, Shahrood Branch, Iran*

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The aim of this study was to study a comparison of posterior wall thickness, interventricular septum thickness and relative wall thickness of left ventricle of heart in male athlete and non-athlete, and to investigate the effect of selected submaximal tests for estimating of VO_2 max (because of frequently use of them), as submaximal short duration activities, on ST segment changes in active young men. For this purpose, 20 healthy men were randomly selected from the athletics at Shahrood city. They had at least 3 years experience in regular physical