

Effects of Resistance Exercise Training on Blood Profile and CRP in Men with Type 2 Diabetes Mellitus

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Abstract : Exercise has been considered a cornerstone of diabetes prevention and treatment for decades, but the benefits of resistance training are less clear. The purpose of this study was to determine the impact of resistance training on blood profile and inflammatory marker (CRP) of type 2 diabetes mellitus people. Thirty diabetic male were recruited (age: 50.34 ± 10.28 years) and randomly assigned to 8 weeks resistance exercise training (n=15) and control groups (n=15). Before and after training blood pressure, weight, lipid profile (TC, TG, LDL-c, and HDL-c) and hs-CRP were measured. The resistance exercise training group took part in supervised 50–80 minutes resistance training sessions, three days a week on non-consecutive days for 8 weeks. Each exercise session included approximately 10 min of warm-up and cool-down periods. Results showed that TG significantly decreased (pre 210.19 ± 9.31 vs. 101.12 ± 7.25 , $p=0.03$) and HDL-c significantly increased (pre 42.37 ± 3.15 vs. 47.50 ± 2.19 , $p=0.01$) after exercise training. However, there was no difference between groups in TC, LDL-c, BMI and weight. In addition, a decrease in fasting blood glucose levels showed significant difference between groups (pre 144.65 ± 5.73 vs. 124.21 ± 6.48 $p=0.04$). Regular resistance exercise training can improve the lipid profile and reducing the cardiovascular risk factors in T2DM patients.

Keywords : lipid profile, resistance exercise, type 2 diabetes mellitus, men

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