

The Effect of Endurance Training and Ginseng Consumption on VEGF and PDGF Plasma in Untrained Females

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Abstract : Objectives: VEGF and PDGF play central role in the processes of angiogenesis and vascular changes in most body tissues. The aim of the present study to determine effect of endurance training with ginseng on VEGF and PDGF levels is untrained female. Methods: Statistic society of this study was untraining male students of Azad University of Sari Branch in year of 2012-2013. Forty young untrained female (age 21.3 ± 0.90 year, height 162.08 ± 8.07 cm, body weight 65.45 ± 7.6 kg and body mass index [BMI] 23.23 ± 2.64 kg/m²) were randomly divided into four groups: control(C), endurance(E), ginseng (G), endurance and ginseng (EG). Participants in training groups performed endurance training for 6 weeks and three sessions per week with 60-80% HRmax. Subjects perform endurance training and consumed ginseng for six weeks. Blood samples from the subjects before and after the test was performed. One way ANOVA were used to test for differences between group and pair T-test were used for differences within groups. In all cases, $P < 0.05$ was considered to be statistically significant. Results: A higher and significant Vo₂ max was found in E and EG groups, while no change in other groups. BMI and Fat% were significantly decreased in EG group. No significant difference was found between and within groups in VEGF level. A higher and significant PDGF was only in endurance group, while there was significant reduction observed in G and EG groups. One-way ANOVA for PDGF showed significant difference between groups. Conclusion: The finding of the current study indicated that ginseng likely could through reducing of angiogenesis factors Such as VEGF and PDGF and reduced activity of tumor necrosis factor and inhibited inflammatory process.

Keywords : endurance, ginseng, VEGF, PDGF, untrained female

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