



Evaluating the combined effect of ergogenic pomegranate juice consumption and combined training on aerobic power of young amateur footballers

Poster Presentation

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Abstract

Introduction: Pomegranate juice (POMj) rich in polyphenols and nitrates, which are both associated with improvements in blood flow and O₂ delivery. Research has shown that after combined training, athlete's endurance ability increases more than when endurance training is done alone. The purpose of this study was to investigate the effect of pomegranate juice consumption with combined training on aerobic performance.

Methods: Sixteen young trained men (mean age: 25.43 (SD 2.6) years; mean fat%: 14.4 (SD 4.1)) were randomly divided into two groups of receiving 330 ml POMj and 330 ml diluted isocaloric drink with starch as placebo (PLA) one hour before training. Combined training was performed for six weeks. Two sessions per week of aerobic exercise and two sessions per week of resistance training. Aerobic training was performed with an intensity of 50-70% of the maximum heart rate and for 20 to 50 minutes increasingly in 6 weeks. Resistance training were performed with an intensity of 40-60% of 1RM for eight movements, each movement 3 sets with 10 repetitions in each set and 60-90 seconds rest between sets. Cooper test was used for measure the aerobic power of the subjects. Analysis of variance 2×2 and Bonferroni was used to test the hypotheses.

Results: The results showed that aerobic power was improved in both groups (P<0.05). Also, there was a significant difference between the aerobic power of two groups (P<0.01). This means that the rate of improvement of aerobic power in the supplement + combined training group was higher than the placebo + combined training group.

Conclusion: The results of the present study showed that supplementation with (POMj) can lead to further improvement of VO₂max.

Keywords

Pomegranate juice; combined training; Aerobic Power; VO₂max; supplement

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