Effect of vitamin E supplementation on delayed onset muscle soreness in young men

Introduction: It has been hypothesized that markers of delayed onset muscle soreness (DOMS) induced by eccentric training could be decreased by supplementing subjects with vitamin E. Hence, this study was carried out to investigate the effect of vitamin E supplementation on DOMS indexes. Material & Methods: Twenty healthy male age 19 to 27 years participated as subjects in this study. The subjects were assigned to either a supplemental (400 IU of vitamin E per day for one month; n=10 and 24.4 ± 2.0 years of age) or a placebo group (n=10 and 24.4 ± 2.0 years of age) using a double-blind research design. peak power (PP) of Lower body, perceived pain, serum activity of the enzyme creatine kinase (CK) and C reactive protein (CRP) were taken before, immediately and 48 hours after the eccentric exercise. Results: The results indicated that perceived pain and serum levels of CK and CRP increased and PP of Lower body decreased significantly immediately after eccentric exercise in the both groups and these changes to be continued until 48 h after the intervention. No significant differences were observed between supplemental and placebo group during the study. Conclusion: In conclusion, vitamin E supplementation had no effect in ameliorating markers of DOMS induced by eccentric exercise. Further studies are needed to examine the effects of vitamin E supplementation on DOMS induced by eccentric exercise.

Keywords:
Delayed onset muscle soreness, Creatine kinase, C reactive protein, Vitamin E, Peak power of lower body

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