

Effect of Vitamin A Supplementation on IFN- γ , TNF- α , IL-2, and IL-6 Levels in Elite Taekwondo Players

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ABSTRACT This study aims to investigate the effects of vitamin A supplementation on cytokine release in 10 male elite taekwondo players. The subjects who were supplemented with 100 mg of vitamin A in daily tablet form for 4 weeks were exercised to exhaustion twice, before and after the supplementation. In the course of the four-week study period, blood samples were collected from the subjects four times in exhaustion and at rest, before and after supplementation. The blood samples were analyzed for IFN γ , TNF- α , IL-2, and IL-6 levels. Vitamin A supplementation resulted in a significant increase in serum IL-2 levels ($p < 0.05$). However, vitamin A supplementation led to the inhibition of serum TNF- α levels, in comparison to pre-supplementation (exhaustion and resting) values ($p < 0.05$). The results of the study indicate that vitamin A supplementation might cause changes in the release of cytokines independent of exercise.