

Effects of Polygonum Cuspidatum Containing Resveratrol on Inflammation in Male Professional Basketball Players

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ABSTRACT

Background: Exercise can lead to acute oxidative stress, which can result in oxidative damage and induce inflammation. Resveratrol may reduce the levels of inflammatory cytokines. Thus, we investigated the effects of this compound on the plasma levels of tumor necrosis factor- α (TNF- α) and interleukin 6 (IL-6) in male professional basketball players.

Methods: Twenty healthy male professional basketball players were randomized into two groups (10 each). For 6 weeks, they received daily either 200 mg of polygonum cuspidatum extract (PCE) standardized to contain 20% trans-resveratrol equivalent to 40 mg trans-resveratrol or placebo. Indices of inflammation were measured before and after 6 weeks of supplementation.

Results: There was a significant reduction in plasma levels of TNF- α and IL-6 after 6 weeks of supplementation; while no change was observed in these markers in the control group.

Conclusions: Present study shows that 6 weeks of PCE containing resveratrol supplementation reduces the inflammation in male professional basketball players.

Keywords: Cytokines, interleukin-6, inflammation, polygonum cuspidatum, resveratrol, tumor necrosis factor- α