

Effects of β -alanine supplementation on wingate tests in university female footballers [Efectos de la suplementación con β -alanina en tests de Wingate en jugadoras universitarias de fútbol femenino]

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Introduction: Football is a sport that develops actions intermittent high-intensity exercise using the anaerobic pathway, for that reason, the muscle fatigue would produce primarily by increasing acidosis. Carnosine, which is formed from L-histidine, β -alanine, has proven to produce an effect ?buffer? of acidosis. Objective: To determine the effect of β -alanine supplementation, on three successive Wingate tests and compare the average power, maximum power and lactate blood in selected female college soccer. Methods: We evaluated 10 football players who were three Wingate, 5 min rest between each sprint, determining the average power, maximum and lactate at the end of each test, then consumed 2,4 gr/day of β -alanine for 30 days and repeated the tests. The control group (n=8) performed the same tests, but without consuming the supplement. Monark cycle ergometer was used (Ergomedic 874E) and to measure lactate the Lactate Pro 2. Results: The group with supplementation significantly improved mean power difference from the control group. The maximum power improved only in the first sprint unlike the control group and Lactate did not differ. Discussion: The evidence shows that the β -alanine improves performance on tests of more than 30 second long, but in our study improves average power and peak power even when performing consecutive sprint, being able to emulate the reality of the football game. © 2015, Grupo Aula Medica S.A. All rights reserved.

β -alanine

Supplementation

Wingate test

Women's football

beta alanine

lactic acid

Acidosis, Lactic

blood

dietary supplement

ergometry

female

human

physiology

soccer

university

young adult

Acidosis, Lactic

beta-Alanine

Dietary Supplements

Ergometry

Female

Humans

Lactic Acid

Soccer

Universities

Young Adult