

Study of aerobic capacity in chronic hemodialyzed patients: Effect of L-carnitine supplementation

Estudio exploratorio de la capacidad aerobia en pacientes en hemodiálisis: Efecto de la suplementación con L-carnitina

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BACKGROUND AND OBJECTIVE: Chronic hemodialyzed patients have a low level of aerobic capacity, caused by the pathologies concomitant to renal insufficiency, according with a low level of physical activity. One of the factors that would contribute to this level of aerobic capacity is the L-carnitine deficit on skeletal muscle. However, the value of the supplementation of L-carnitine to improve the physical fitness has been controversial. The objective of this work was to evaluate the effect of the administration of L-carnitine on VO₂ max in hemodialyzed patients. **PATIENTS AND METHODS:** A group of 21 patients (20-50 years old) on a program of chronic hemodialysis was studied. During 12 weeks, 13 of them received L-carnitine, 7 men and 6 women, 38.8 (9.5) years old; BMI 24.2 (2.1) Kg/m²; 8 of them received placebo, 4 men and 4 women, 35.8 (11.4) years old; BMI 24.5 (5.8) Kg/m². **RESULTS:** There was an increase in VO₂ peak on L-carnitine group from 16.3 (2.8) mLx Kg⁻¹ x min⁻¹ to 19.5 (3.3) mL