

Effect of Coenzyme Q₁₀ Supplementation on the Oxidant/Antioxidant Balance (Note II)

Rareş D. Ciocoi-Pop¹, Simona Tache², Cosmina Bondor²

¹*Faculty of Physical Education and Sport, "Babeş-Bolyai" University Cluj-Napoca*

²*"Iuliu Haţieganu" University of Medicine and Pharmacy, Cluj-Napoca*

Abstract

Background. CoQ₁₀ known as ubiquinone is present in all body cells and is indispensable for life. Its structure is like E vitamin but the antioxidant effect is powerful.

Aims. We followed the influence of CoQ₁₀ supplementation on oxidant/antioxidant balance in athletes.

Methods. Two groups of soccer players were in the research: group I control group (n=10) athletes and group II (n=10) who were supplemented with 30 mg of CoQ₁₀ daily. The oxidant/antioxidant balance was determined pre- and post- training from the urine and saliva. The indicators for the research were malondialdehyde MDA and hydrogen donors HD.

Results. The comparative analyses of the post effort O/AO balance demonstrated significant increases of hydrogen donors in the urine for group II compared to group I. Significant increases appeared for MDA and DH in saliva for group II.

Conclusions. CoQ₁₀ supplementation modifies the O/AO balance more in saliva increasing the antioxidant defense.

Key words: CoQ₁₀, athletes, training, oxidative stress.