Abstract

Oxidative stress corresponds to an imbalance between the generation of activated oxygen species (EOA) and the antioxidant status of the organism; the purpose of our experiment is to study the opposite effect of the diferulyol methane (Curcumin) and the evaluation the effect of iron oxide on liver cells. Pretreated and stored organs at the temperature (-80 ° C) of rats wistar strain were used for the assay of stress parameters (GSH, MDA, and CAT, GPx, GST) and metabolic parameters (carbohydrate, protein and Lipid) to the liver. This study shows that iron oxide caused a hepatic effect by the presence of a globally pro-oxidizing effect, this is revealed by the decrease in the protein level, MDA,GSH , and the enzymatic activity CAT In the liver, on the one hand, and on the other hand, we have seen an increase in the enzymatic activity of GSH, GPx and the level of lipids and carbohydrates. Our results also show that diferulyol-methane supplementation (curcumin) improved the detoxification equilibrium and decreased the adverse effects of iron oxide. Curcumin appears to be an effective antioxidant to reduce the imbalance between the formation of free radicals and antioxidant systems in the body, and thereby reduce the intensity of oxidative stress induced by iron oxide.

Key words: diferulyol-methane, liver, oxide de fer, oxidative stress.