Abstract

This study aim to evaluate the protective effect of silymarin on sodium fluoride-induced oxidative stress in rat cardiac tissues. Animals were pretreated with silymarin at 20 and 10 mg/kg prior to sodium fluoride consumption (600 ppm through drinking water). Vitamin C at 10 mg/kg was used as standard antioxidant. There was a significant increase in thiobarbituric acid reactive substances level (59.36 ± 2.19 nmol MDA eq/g tissue) along with a decrease in antioxidant enzymes activity (64.27 ± 1.98 U/g tissue for superoxide dismutase activity and 29.17 ± 1.01 µmol/min/mg protein for catalase activity) and reduced glutathione level (3.8 ± 0.15 µg/mg protein) in the tissues homogenates of the sodium fluoride-intoxicated rats. Silymarin administration to animals before sodium fluoride consumption modified the levels of biochemical parameters.

Keywords

Catalase, glutathione, sodium fluoride, superoxide dismutase, silymarin, TBARS.