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Effects of Sodium Fluoride on Liver and Kidney in Rabbits

Abstract:

Sodium fluoride (NaF) in the form of mouthwashes, toothpaste, fluoridated water, and tablets was used for the protection
from caries
Aims: to study effects of sodium fluoride on liver and kidney in rabbits. Materials and Methods: Twelve healthy male rabbits
were involved. Control group: six rabbits were kept on a standard diet and water with no any treatment. Treatment group:
another six rabbits were treated by NaF at the dose of 20 mg/kg/day dissolved in 400 ml of distill water. At the end of 30 days
of treatment, five ml of blood samples were taken from each animal . Serum analysis was done by colorimetric Assay kit for
total antioxidant capacity(TAC), Malondialdehyde (MDA), alkaline phosphatase (ALP), Aminotransferases (AST and ALT),
Creatinine and urea. Results: there were significant differences between the control and treatment groups. Significant
reduction in TAC with a significant increase in MDA, ALP, AST, ALT, creatinine, and urea in the treatment group compared
to the control group. Conclusion: (NaF) at the dose of 20 mg/kg/day for 30 days can result in a significant change in serum
biochemical markers of liver and kidney in rabbits.