

Abstract

Nanotechnology is the rising fields and they have great importance regarding different customer products but they have also adverse effects on health. The purpose of this study to evaluate the toxic effects of nickel oxide nanoparticles in Albino mice (*Musmusculus*). The nickel oxide nanoparticles prepared by sol-gel method and the X-ray diffraction analysis and scanning electron microscopy showed the particles size (500nm), purity of content and hexagonal shape of crystals. The male mice were exposed with different doses of nickel oxide nanoparticles to determine LD₅₀, and it is 249.866 according to the body weight of mice. Then ½ of this dose injected after regular interval of 24 hours for 4 days. After 96 hours of exposure, the mice blood collected and sacrificed for organ collection. Control group of mice injected with 3% saline solution. On the blood samples, serological test conducted to evaluate the level of AST, ALT, creatinine and blood urea level. There is marked difference observed between the control group serum results and experimental group serum evaluation. Complete blood count also showed the significant results. Histopathological changes observed in liver, kidney and lungs of treated group while control group not have any abnormality. So, the nickel oxide nanoparticles are more toxic when injected intravenously in the mice.