

Acute Hepatotoxicity of Nano and Micro-Sized Iron Particles in Adult Albino Rats

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Abstract : In the near future, nanotechnology is envisaged for large scale use. Hence health and safety issues of nanoparticles should be promptly addressed. In the present study the acute hepatotoxicity assessment due to high single oral dose of nano iron and micro iron particles were studied. The normal daily activities, biochemical alterations, blood coagulation, histopathological changes in Wister rats were the aspect of the toxicological assessment. This work found that significant alterations in biochemical enzymes (serum iron level, liver enzymes, albumin, and bilirubin levels), blood coagulation (PT, PC, INR), and histopathological changes occurred more prominently in the nano iron particle treated group.

Keywords : nanobiotechnology, nanosystems, nanomaterials, nanotechnology

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