

Unfolding the benign potential of *Allium sativum* in various tissues of Swiss albino mice intoxicated with lead nitrate

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The prominent noxious effect of lead which is a prevalent hazardous divalent metal ion existent in the physical world is quite familiar for its oxidative possessions. On the other hand, *Allium sativum* (Garlic) known for its established antioxidant capabilities was considered in the form of its extract in the current study in order to evaluate its medicinal potency towards modified biochemical, haematological and immunological specifications in addition to the reduction of lead content in kidney, brain, blood and liver tissue of mice treated with atrocious lead nitrate $Pb(NO_3)_2$. The conclusive results obtained from the study depicted a crucial decline in total erythrocyte, leukocyte, lymphocyte, monocyte, reduced glutathione (liver), superoxide dismutase (liver), catalase (kidney, liver and brain), hepatic protein content, macrophage activity, immunoglobulin as well as haemoglobin content. While on the other hand, the treatment substantially elevated thiobarbituric acid reactive species, cholesterol, lipid peroxidation (liver), aspartate transaminase, aspartate aminotransferase (liver) alanine transaminase, acid phosphatase and alkaline phosphatase enzymes in kidney, liver and brain tissue of treated mice. Nevertheless, oral administration of *Allium sativum* extract to the lead nitrate treated mice group curtailed the imbalanced parameters upto a large extent as well as displayed improved outcomes in the liver histology reports which previously showed pathophysiological differences when treated with lead nitrate. Hence, the results displayed through the performed study establish garlic as a potent phytoantioxidant possessing defensive capability towards lead toxicity.

Biography

Veena Sharma currently on the position of Professor in the Department of Bioscience and Biotechnology Banasthali Vidyapith, Rajasthan, India. I have published several papers in various reputed and renowned journals and is also a part of the reviewer team in various popular journals I have guided several PhD. As well as dissertation students and i am also a life member of STOX, IAES (India). I have also received various awards like Shiksha Rattan Puraskar and Certificate of Excellence, IIFS, New Delhi, 2012, Glory of India Award, IIFS New Delhi, 2013.and many others.

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