

Alleviation of Hepatic Arsenic Intoxication by *Chlorophytum borivilianum* Root Extract †

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† Presented at Environmental Toxicology: Impact on Human Health, (Environ Tox 2021)

Received: 5.11.2021; Revised: 18.11.2021; Accepted: 20.11.2021; Published: 30.11.2021

Abstract: Groundwater arsenic contamination imposes a big human health challenge. *C. borivilianum* is a medicinal plant found widely in Rajasthan (India). Its roots extract have various properties like antioxidant and aphrodisiac. The hepatic histopathological study had done in Swiss albino mice. There was four groups made in which the first group was administered with DDW, group II received sodium arsenite, group III received *C. borivilianum* body and group IV, and V administered sodium arsenite and *C. borivilianum* root extract. The experiment duration was 30 days All the groups. Hepatic histoarchitecture was studied. The arsenic-treated group showed deterioration in hepatic tissue compared to all groups. It was shown in terms of Cytoplasmic vacuolization, increased sinusoidal spaces, increased number of binucleated cells, karyorhexis, kariolysis, and necrosis. An increased number of Kupffer cells were also reported. But combination group showed reparative changes in comparison to the arsenic group. It is concluded that *C. borivilianum* root extract administration reduces the adverse health impact of arsenic intoxication.

Keywords: sodium arsenite; *C. Borivilianum*; karyorhexis; kariolysis; necrosis.

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Funding

The research was funded by CSIR, NewDelhi, India , to Sunil Kumar Sharma as NET-JRF, Letter No.:09/149/ (0518)/EMR-I dated 23/01/2009.

Acknowledgments

Authors are gratefully acknowledged for this work to the CSIR, New Delhi, India, for providing financial assistance to Sunil Kumar Sharma as NET-JRF, Letter No.:09/149/ (0518)/EMR-I dated 23/01/2009.

Conflicts of Interest

The authors declare no conflict of interest.