Effect of Cadmium at Cellular and Sub-Cellular Level and its Remedies by Amla and Lycopodium

Abstract: The cadmium toxicity at different cellular and sub cellular level is due to its accumulation in different organs through food and drink from the environment. Its removal is not possible by most chelating agents as they are unable to pass through membrane. These accumulations cause severe damage at cellular and sub-cellular levels. This study is to observe the remedial effects of amla and Lycopodium on cadmium induced toxicity. To conduct this study, Swiss albino mice were given chronic exposure of cadmium chloride with the following treatment series. Mice were divided into different sets; one set without any treatment and with normal food and water, one set with cadmium followed by Amla extracts, one set with cadmium followed by extracts of Lycopodium and another set provided with cadmium followed by extracts of Amla and Lycopodium both. To observe the changes tests for micronuclei detection and sperm head anomalies were performed. Result showed that toxicity caused by cadmium was reduced to some extent by the treatment series, but the drugs were more effective when applied additively.

Keywords: cadmium, toxicity, amla, *Lycopodium*, swiss albino mice.