

**Bioactivity and Toxicity Of Bridelia Micrantha, Chenopodium Ambrosoides And Ocimum Americanum Plant Extracts. (2016).**

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**Abstract**

Background: *Bridelia micrantha*, *Chenopodium ambrosoides* and *Ocimum americanum* plant species are commonly used in traditional medicine for a number of ailments. The extracts of these plants have been shown to have anti-schistosomal activity suggesting that they could be used for the development of new chemical entities (NCEs) for the treatment of schistosomiasis. However there is limited knowledge on their toxicological profile and their use in traditional medicine may not be a satisfactory safety indication.

**Methods:** In this study the extracts were first screened for bioactivity using brine shrimp lethality test for the determination of LC50 followed by rodent acute toxicity and 28 day subchronic studies.

**Results:** *B. micrantha* water extract with a LC50 of 77µg/ml was deemed toxic while *C. ambrosoides* methanol and water extracts were moderately toxic with LC50 of 104.63µg/ml and 696.44µg/ml respectively. *O. americanum* hexane and water extracts toxicity varied from moderate to slightly toxic with LC50 of 887.59µg/ml and 2254.60µg/ml respectively. *C. ambrosoides* and *O. americanum* water extracts which were preferentially selected for subsequent studies were found to have mild to no irritation to rodent eyes and skin. Moreover, the aminotransferases AST and ALT which were used to detect liver injury suggested negligible effect.

Conclusions: This therefore confirms that *C. ambrosoides* and *O. americanum* water extracts are safe for clinical use with *O. americanum* water extract having a slight edge.

**Keywords:** Antihelminthic, Schistosomiasis, Toxicity

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