

عنوان مقاله:

Acute and subchronic toxicity profiles of *Melastomastrum capitatum* (Vahl) Fern. (Melastomataceae) root aqueous extract in Swiss albino mice

محل انتشار:

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خلاصه مقاله:

Melastomastrum capitatum is a plant whose leaf extract is popularly known for its ability to cure cancer of the ovary in Mambila plateau towns in Nigeria. Apart from the leaves, the root extract has been used to manage various diseases such as bacterial infections, pains, and diabetes. As a result of these health benefits, liver and vital organ damage are often associated with short (acute) or long (subchronic) intake of this plant decoction in traditional medicines. This present study was carried out to determine short and long (subchronic) terms effect of the root aqueous extract for the treatment of diseases especially diabetes by the Fulani tribe in Mambila plateau in Taraba State, Nigeria. Acute and subchronic toxicity studies were carried out following the guidelines stipulated by the Organization for Economic Cooperation and Development (OECD). In the acute toxicity study, a limit test dose of 2000 mg/kg body weight (b.w) of aqueous root extract was administered by oral route into five Swiss albino mice consisting of five groups of one mouse per group. Observations were carefully made for signs of toxicity for the first 4 hours and then once daily for 2 weeks. A lower dose of 300 mg/kg b.w administered to the mice do not show any sign of acute toxicity unlike the higher dose which produced signs such a reddish eyes, itching and restlessness which last only a few minutes of extract administration. Subchronic toxicity study revealed that root extract of the plant is slightly toxic as had shown by results of most of blood parameters investigated such as WBC, PCV, ALT, AST, ALP, serum electrolytes, etc. However, our results showed that root aqueous extract of *M. capitatum* is well tolerated at the doses investigated as there was no major damage to vital organs like the liver, kidney and heart of the animals. The study therefore showed .that the root extract of the plant is safe for use as an ethnomedicinal prescription for diseases in traditional medicine

کلمات کلیدی:

Toxicity profiles, Mambila plateau, *Melastomastrum capitatum*, blood parameters

لینک ثابت مقاله در پایگاه سیویلیکا:

