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Oral safety evaluation of aqueous extract of boiled *Stigma maydis* (Corn silk) in rats

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Corn silk (*Stigma maydis*) is used in traditional medicine for the treatment of diabetics, kidney stone, depressant, fatigue, urinary infections and as a slim tea. However, there is limited scientific literature on its safety. This study, therefore, evaluated the acute and sub-acute toxicity effect of aqueous extract of the *Stigma maydis* in rats. In acute toxicity test, the aqueous extract of *Stigma maydis* was orally administrated up to 5000mg/kg in a single dose using gavage and the rats were observed for any behavioral changes, signs of toxicity or mortality. In sub-acute toxicity, the rats were orally administered 500, 1000 and 2000 mg/kg *Stigma maydis* extract for 28 days. In the acute toxicity test, *Stigma maydis* did not cause any mortality and was non-toxic at the dose of 5000mg/kg body weight. In the sub-acute study, the extract caused an observable significant increase ($p < 0.05$) in triglycerides and low-density lipoprotein while high-density lipoprotein decreased significantly ($p > 0.05$) when compared with their control groups. Rats treated with 1000 and 2000mg/kg of *Stigma maydis* significantly increased ($p < 0.05$) in AST and ALT when compared to their control groups. The histopathological results revealed degenerative changes in the liver at 2000mg/kg extract. This study suggests that prolonged use of higher doses of aqueous extract *Stigma maydis* ≥ 1000 mg/kg could be hepatotoxic and therefore only lower doses should be encouraged for therapeutic use.

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