Kamaluddeen Garba, Clin Exp Pharmacol 2016, 6:2 (Suppl)
http://dx.doi.org/10.4172/2161-1459.C1.010

Anticonvulsant effects of ethanol stem bark extract of *Lannea barteri* (Anacardiaceae) in mice and chicks

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Preparation of *Lannea barteri* is used in the treatment of epilepsy, gastritis, childhood convulsions among other uses in northern Nigeria for many years. The popularity of its efficacy is well established among the Traditional Medical Practitioners. The present study aimed at screening the ethanol stem bark extract of *Lannea barteri* for possible anticonvulsant action. Anticonvulsant screening was carried out using Pentylenetetrazole (PTZ), Strychnine (STN) and Picrotoxin (PTC) induced seizures in mice while Maximal Electroshock (MES) test was carried out in day old chicks. Preliminary phytochemical screening of the extracts was performed on the extracts. The intraperitoneal median lethal dose (LD50) was carried out in mice. The intraperitoneal (i.p.) LD50 of the extract was estimated to be 567.70 mg/kg in mice. *Lannea barteri* (160 mg/kg) significantly ($p \leq 0.05$) delayed the mean onset of seizures induced by PTZ when compared with normal saline treated group. Similarly, the extract at 160 mg/kg significantly ($p \leq 0.05$) prolonged the latency of convulsion induced by STN. *Lannea barteri* (40 mg/kg) significantly ($p \leq 0.05$) delayed the mean onset of seizures induced by picrotoxin in mice. The extracts at all the doses tested showed no observable effect in decreasing the mean recovery time of convulsed chicks in MEST. Flavonoids, alkaloids, tannins, saponins and glycosides were found present in the stem bark extract. Our findings revealed that the ethanol stem bark extract of *Lannea barteri* contained bioactive constituents that may be useful in the management of petit mal epilepsy and supports the ethnomedical claim for the use of its stem bark in the management of epilepsy.

Biography

Kamaluddeen Garba earned is his MSc from Bayero University, Kano, where he is currently working as Lecturer. Before then, he had brief stint at multinational pharmaceutical companies where he held various marketing/sales roles. His burning interest in the academia made him join Bayero University, Kano 2012. His major area of interest is in the discovery of lead molecules from natural product that could translate to safer and efficacious agents to treat epilepsy. He has published articles in this area in international journals. He is strongly open to collaboration from partners in this field.

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