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Anticonvulsant effects of the Stem bark extract of *Annona senegalensis* Pers.

Konate Almamy[1]; Sawadogo Wamtinga Richard[4]; Dubruc Franck[2,3] Caillard Olivier[2,3] et Guissou Innocent Pierre [1,4]

[1]Laboratoire de Pharmacologie-Toxicologie, UFR/SDS Université de Ouagadougou 03 B.P. 7021, Ouagadougou 03/ Burkina Faso.
[2]Institut National de la Santé Et de la Recherche Médicale (Inserm), Unité Mixte de Recherche en Santé (UMR-1072, 13015, Marseille, France
[3]Aix-Marseille Université, Unité de Neurobiologie des canaux Ioniques et de la Synapse (UNIS), 13015, Marseille, France
[4]Institut de Recherche en Science de la Santé (IRSS), Département Médecine-Pharmacopée Traditionnelle et Pharmacie (MEPHATRA/PH),.03 BP 7192 Ouagadougou 03/ Burkina Faso.

[*]Corresponding author: konatealmamy@gmail.com; Tel: 0022670241568

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Abstract

Annona senegalensis Pers. is claimed in traditional medical practice, to be useful in the treatment of epilepsy in some parts of Burkina Faso. In the present work, the anticonvulsant property of methanolic extract, n-hexane fraction, ethyl acetate fraction and aqueous fraction were investigated one seizures induced by pentylenetetrazole (70 mg/kg) or pilocarpine (240 mg/kg). Extracts were administered *intraperitoneally* and *per os,* at the pre-treatment time of 30 minutes at 200 and 400 mg/kg and mice and rats. Extracts and fractions had no significant increased the latency to the first convulsion induced by pentylenelenetetrazole or pilocarpine. The treatment with methanolic extract and aqueous fraction (400 mg/kg) significantly ($p< 0.05$) protected against pentylenetetrazole or pilocarpine induced seizures. The result obtained in this study suggests that the stem-barks of this plant may possess anti-convulsant property in mice and rats.

Keywords: Anticonvulsant; pentylenetetrazole; pilocarpine; scopolamine

Introduction

Epilepsy is one of the most common neurological disorders and is characterized by seizures, which are of various types and result from episodic neuronal discharges (Gaustaut, 1973). Of the 50 million people with epilepsy worldwide, 10 million live in Africa alone (Senanayake & Roman, 1993). In Burkina Faso, it's estimated to 10.6 ‰ in the general population (Millogo *et al.*, 2004; Ngounou *et al.*, 2007). In the developed countries, where drugs are easily available, epilepsy responds to treatment in up to 70% of the patients. However, for ec-

