Anticonvulsant Effect of Alternanthera Brasiliana Extract On Pentylenetetrazole-induced Seizures in Rats

Cristhine Schallenberger, Vinícius Vieira, Jéssica Saldanha Krai, Fernando Morisso, Edna Suyenaga, Rejane Giacomelli, Tavares, Edson Fernando Muller Guzzo and Adriana Simon Coitinho

Epilepsy is a disorder that affects 1-2% of the population and a significant percentage of these patients do not respond to anticonvulsant drugs available in the market suggesting the need to investigate new pharmacological treatments. Numerous substances have been tested for potential anticonvulsant activity, but only a few generated anticonvulsant drugs. In this study, the potential anticonvulsant effect of Alternanthera brasiliana extract was investigated using an animal model of acute epilepsy induced by pentylenetetrazol (PTZ). The animals received injections of A. brasiliana extract (20, 100 or 500 mg/kg) or vehicle; 30 minutes later, they received an injection of PTZ, and were then observed for 30 minutes. Seizure latency and duration were recorded. The administration of 20 mg/kg of A. brasiliana extract had an anticonvulsant effect when compared with the control group. Thus, further studies using other seizure models as well as the investigation of isolated fractions of the extract are needed to elucidate the mechanisms of action of A. brasiliana.