

Herbals & Natural Remedies

October 26-27, 2015 Chicago, USA

Evaluation of antiepileptic activity of alcoholic extract of Phyllanthus amarus

Ujwala Wasnik¹, Vijender Singh² and Mohammed Ali³
¹R V Northland Institute, India
²B B S Institute of Pharmaceutical and Allied Sciences, India
³Jamia Hamdard Institute, India

Phytomedicines are used by the traditional healers in the management, control and/or treatment of convulsions. The present report is an investigation of anti-seizure activity of *Phyllanthus amarus*, belonging to the Euphorbiaceae (family). The Pentyleneterazole (PTZ) and the Maximal Electroshock Seizure (MES) models were used for assessing the anti-convulsant effects of the leaves of alcoholic extract in mice and rats. Wistar rats of either sex weighing in between 150-250 gm and 25-30 gm of albino mice were used for the experiments. The animals were divided into 6 groups containing 6 animals in each group. Group-I received 10 ml/kg of 1% NaCMC p.o. and served as control. Group-II received phenytoin sodium (25 mg/kg, orally) as standard controls in MES method and PTZ induced seizures method, respectively. Group- III and IV were administered two graded doses of test drug, i.e., 50 mg/kg and 100 mg/kg, respectively, p.o. in both the experimental models. The extracts suppress the duration of hind limb extension induced by MES in mice and also exhibited protector effect in PTZ-induced seizures in rats at the doses of 50 mg/kg and 100 mg/kg p.o. Since the alcoholic extract of *Phyllanthus amarus* delayed the occurrence of MES induced convulsions and PTZ induced convulsions, it is concluded that, it interferes with gabaergic mechanisms to exert their anticonvulsant effects. The alcoholic extract of leaves produced significant anticonvulsant activity for all the different models studied. The latency of seizure (sec), duration of seizure (sec) and mortality rate were determined in test and control groups.

Biography

Ujwala Wasnik received her BPharm from Amravati University, India, in 2003 and MPharm (Quality Assurance) from the S N D T Women's University, Mumbai in 2007 and she submitted her PhD in Pharmacology from the University of Uttar Pradesh Technical University, Lucknow in 2014. She has worked as a Lecturer in the Faculty of Pharmacy and Pharmaceutical Sciences at the R V Northland Institute, Greater Noida, India, during 2009-2012. She has also served as a Visiting Faculty at C U Shah College of Pharmacy, Mumbai from 2005 to 2007 where she was doing her Master of Pharmacy and DIPSAR-Delhi University of Pharmaceutical Sciences and Research Centre during 2008-2009. She worked as a Research Associate on AICTE funded research project entitled as "Assessment of medicinal plants for the nonalcoholic steatohepatitis of fatty liver diseases and its molecular mechanism of actions". She presented her research papers in international conferences PSWC 2007 held at The Netherlands and the conference which was held at Dubai in 2012. She presented her research papers in national conferences held at Mumbai, Jaipur and Varanasi. She has published her research papers in reputed journals. She worked as a Quality Analyst in A-KLASS Pharmaceutical Private Limited, during 2003 to 2004. She has published 7 peer-reviewed papers and 7 researches.

pharmaujju@gmail.com

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