

RESEARCH PAPER

Shatavari: A nature's gift for autism

Priya Joon, Dinesh Dhingra and Milind Parle

Pharmacology Division, Department of Pharmaceutical Sciences, Guru Jambheshwar University of Science and Technology (A- Grade State Technical University), Hisar (Haryana) India
Email : mparle@rediffmail.com; piks.priya@gmail.com

Article Info : Received : 18.08.2019; Revised : 14.09.2019; Accepted : 29.09.2019

Autism is a serious developmental disorder seen in early childhood that impairs the ability to communicate and interact socially. It is also characterized by a tendency to engage in repetitive behaviours, apathy and cognitive decline. Early prenatal or post natal exposure to neuro-toxicants such as valproic acid (VPA), thalidomide and ethanol induce behavioral alterations similar to autistic symptoms. *Asparagus racemosus* commonly known as *Shatavari* has been found to possess neuro-protective, nootropic, antidepressant, and antianxiety activities. Therefore, the present study was undertaken to investigate the effect of the root extract of *Asparagus racemosus* on valproic-acid induced autism in rat pups. A single intraperitoneal injection of sodium valproate (500 mg/kg) was given on 13th day of gestation to pregnant Wistar female rats for inducing autism in rat pups. *Asparagus racemosus* root extract (100 and 200 mg/kg, p.o.) administered alone significantly reversed valproic acid induced hyperlocomotion, anxiety, memory impairment, increased sensitivity to pain and depression-like behaviour in pups. Shatavari restored valproic acid-induced behavioural deficits of rat pups in the present study probably via its anti-anxiety, anti-depressant, nootropic, anti-nociceptive and neuro-protective properties.

Key words : Autism, *Asparagus racemosus*, Sodium valproate, Rat pups

How to cite this paper : Joon, Priya, Dhingra, Dinesh and Parle, Milind (2019). Shatavari: A nature's gift for autism. *Asian J. Bio. Sci.*, **14** (1&2) : 12-21. DOI : 10.15740/HAS/AJBS/14.1&2/12-21. Copyright@ 2019: Hind Agri-Horticultural Society.