A145 Anticonvulsant activity of fraction B1 isolated from *Delphinium denudatum* on 4 aminopyridine induced seizures in rat hippocampal entorhinal cortex slices

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Delphinium denudatum, a medicinal herb, popularly known as "Jadwar" is used for the treatment of Epilepsy in traditional Unani system of medicine in Subcontinent (1). Studies have previously shown that aqueous fraction and fraction FS-1 inhibited sustained repetitive firing and PTZ and BIC induced epileptiform activity in cultured hippocampal pyramidal neurons (2, 3). Data on anticonvulsant activity of fraction B1 on 4 aminopyridine (4 AP) -induced seizure like events in rat hippocampal-entorhinal cortex slices is presented in this study. Transverse hippocampal-entorhinal cortex slices (400 microns thick) were prepared from Wistar rats (150-200 g). Slices (n=5) were then perfused with pre-warmed (36° C) carbogenated Artificial Cerebrospinal Fluid (ACSF) 1.5 ml/min. Slices were kept in interface chamber for 2 hours before electrophysiological recording was carried out using extracellular ion-sensitive electrodes in entorhinal cortex (EC). Introduction of 4 AP (100 µM) in ACSF resulted in regular seizure like events (duration 30-45 sec, amplitude 2-3 mV) with corresponding rise in extracellular K^+ concentration. Addition of Fraction B1 (1.6 mg/ml) to ACSF gradually reduced the duration, frequency and amplitude and then completely suppressed these seizure like events and corresponding increase in K^+ in 10-15 minutes. The seizure like activity returned with removal of fraction B1 from ACSF. Results suggest presence of anticonvulsant compounds in fraction B1 that suppressed 4 AP-induced seizure like events. We conclude that further studies on isolation and anticonvulsant activities of fraction B1 may lead to discovery of new class of naturally occurring anticonvulsant drugs.

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A146 Bioguided research of nootropic substances from *Bacopa monnieri*

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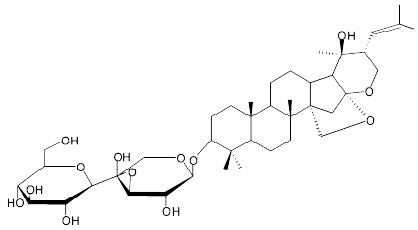
B. monnieri Linn. (Scrophulariaceae) is an Indian medicinal plant used in the Ayurvedic medicine tradition in the treatment of a number of disorders, particularly those involving anxiety and poor memory (1).
The butanolic extract of its aerial parts at 40 mg/kg p.o. during five days enhances memory in rats in an one-trial test based on the differerential exploration of familiar and new objects (2): RI (recognition index) = 65% ± 2.5%. Control = 50%. Locomotor activity which is a good indication of anxiety decreases in parallel by 30% (± 5%).
From the active fraction, two new structures have been isolated by TLC and HPLC fractionation and identified as 3β-O-[β-D-glc(1→3)β-D-glc]-pseudojujubogenine (**1**) and 3β-O-[β-D-glc(1→3)-α-L-ara]–pseudojujubogenine (**2**) by spectroscopic methods.



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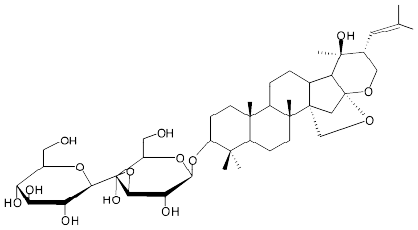

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