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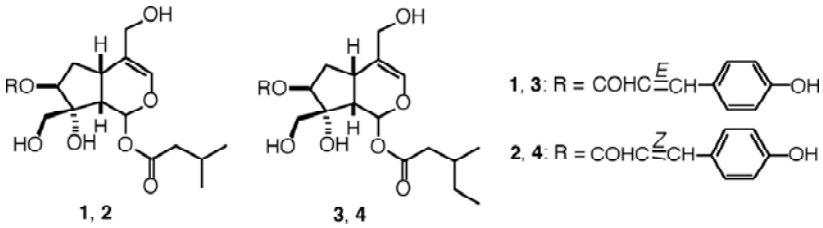
## A133 Neurotoxic iridoids from *Viburnum luzonicum*

Y. Minoshima [a], I.-S. Chen [b] and Y. Fukuyama [a]
[a] Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Tokushima 770-8514, Japan; [b] Kaohsiung Medical University, Kaohsiung, Taiwan

We have studied the biologically active substances in the *Viburnum* species and have found a number of unique vibsane-type diterpenoids (1, 2). In the course of our search for neurotrophic natural products in the leaves of *Viburnum luzonicum* collected in Taiwan, the fraction containing iridoids was found to exhibit toxic effect on the neuronal cells in the primary culture of rat cortical neurons. A combination of silica gel chromatography and reversed phase HPLC led to the isolation of four new iridoids **1-4**. The structures of **1-4** were elucidated by extensive 2D NMR analysis. Compounds **1-3** dose-dependently exhibited neurotoxicity on the primary neuronal culture at 1-10 μM. These compounds are likely to specifically show some toxic effect on the neuronal cells. It will be also reported to investigate toxic mechanism caused by **1-3**.




**References: 1.** Y. Fukuyama et al (2002), Chem.Pharm. Bull., 50, 368-371. **2.** M. Kubo et al (2001), Tetrahedron Lett., 42, 1081-1083 (2001).

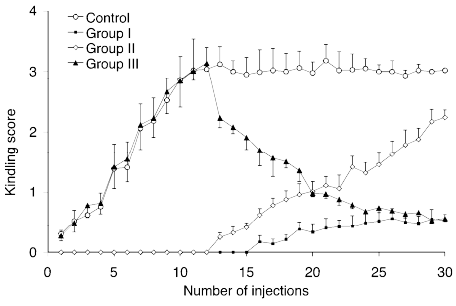
## A134 Effect of *Dalbergia saxatilis* on picrotoxin-induced kindling in mice

O.K. Yemitan and O.O. Adeyemi
Department of Pharmacology, College of Medicine, University of Lagos, Lagos, Nigeria. P.M.B. 12003, Lagos, Nigeria.

*Dalbergia saxatilis* (family: Leguminosae; sub family: Papilionaceae) is used in traditional African medicine to manage epilepsy. We have studied the effect of *Dalbergia saxatilis* against seizures in kindling models. The kindling model is used for second screening of anticonvulsant drugs and is the most widely studied animal model of epilepsy (1). Here we report the effects of the root extract on picrotoxin kindling since it is effective against picrotoxin-induced convulsion (2).

Kindling was produced in mice by three-time weekly, ten consecutive week- (30 times) intraperitoneal administration of 1.5 mg/kg picrotoxin in mice. Behavioural seizures were classified into stages according to our recent observation (modified from Gee et al., 1981) (3). The mice were divided into three groups in which 200 mg/kg of the extract was administered orally before picrotoxin thus: Group I: Throughout the 1st - 30th kindling trials; group II: During the 1st - 12th kindling trials; and group III: During the 13th - 30th kindling trials.

The extract significantly (P<0.05) retarded the development of picrotoxin kindling in mice and decreased the kindling progression (illustrated in the graph). In another set of experiments, the extract (200 mg/kg) significantly prevented convulsion in mice when given for 8 consecutive days after full kindling has been achieved, but not when the same dose was given once. These results provide a justification for the use of the aqueous root extract of the plant in the management of epilepsy, in traditional medicine.




**References: 1.** McNamara J.O. (1989) Epilepsia 30: suppl. 1: S13-S18. **2.** Yemitan O.K. et al. (2001) NJN 4: 33-40. **3.** Gee K.W. et al. (1981) Exp. Neurol. 74: 265-275. **4.** Minami E. et al. (2000) Phytomedicine. 7 (1): 69-72.