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Mnemonic and histopathological assessment of the neuroprotective effects of *Murraya koenigii* leaves extract in rats with partial global cerebral ischaemia (Article)

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Abstract

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Introduction: Preclinical studies have reported that *Murraya koenigii* leaves (MKL) could enhance memory. MKL is also known for its antioxidant activity. The current study was to assess the possible neuroprotective potential of MKL methanolic extract in a two vessel occlusion (2VO) rat model of partial global cerebral ischaemia. **Methods:** Rats were divided into memory and learning groups. Each group was subdivided into sham control, untreated 2VO and MKL-treated 2VO subgroups. The Morris water maze test was implemented to assess the rats' cognitive function postoperatively. Brain samples were histopathologically examined for viable neurons within the CA1 hippocampal region. **Results:** Water maze test findings showed that MKL positively improved memory and learning impairments. However, this improvement in memory test for the treated group was still significantly inferior to that of the healthy control group. Additionally, MKL treated group exhibited insignificant difference in the number of viable hippocampal CA1 pyramidal neurons from that of the untreated 2VO group, whereas both MKL treated and untreated 2VO groups showed significantly less viable neurons when compared with the control group. **Conclusion:** MKL extract modestly improved memory without providing substantial neuroprotective action to the hippocampal neurons in rats with chronic partial global cerebral ischaemia. © 2019 Default.

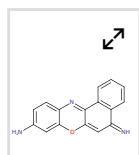
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-
- 1 Medina, L.S., Zurakowski, D.
Measurement variability and confidence intervals in medicine: Why should radiologists care?

(2003) *Radiology*, 226 (2), pp. 297-301. Cited 43 times.
<http://radiology.rsna.org>
doi: 10.1148/radiol.2262011537

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-
- 2 Tachibana, Y., Kikuzaki, H., Lajis, N.H., Nakatani, N.
Antioxidative activity of carbazoles from *Murraya koenigii* leaves

(2001) *Journal of Agricultural and Food Chemistry*, 49 (11), pp. 5589-5594. Cited 218 times.
doi: 10.1021/jf010621r

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-
- 3 Baliga, M.S., Jagetia, G.C., Rao, S.K., Babu S, K.
Evaluation of nitric oxide scavenging activity of certain spices in vitro: A preliminary study

(2003) *Nahrung - Food*, 47 (4), pp. 261-264. Cited 69 times.
doi: 10.1002/food.200390061

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-
- 4 Adebajo, A.C., Ayoola, O.F., Iwalewa, E.O., Akindahunsi, A.A., Omisore, N.O.A., Adewunmi, C.O., Adenowo, T.K.
Anti-trichomonal, biochemical and toxicological activities of methanolic extract and some carbazole alkaloids isolated from the leaves of *Murraya koenigii* growing in Nigeria

(2006) *Phytomedicine*, 13 (4), pp. 246-254. Cited 77 times.
doi: 10.1016/j.phymed.2004.12.002

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-
- 5 Vasudevan, M., Parle, M.
Antiamnesic potential of *murraya koenigii* leaves

(2009) *Phytotherapy Research*, 23 (3), pp. 308-316. Cited 32 times.
<http://www3.interscience.wiley.com/cgi-bin/fulltext/121431386/PDFSTART>
doi: 10.1002/ptr.2620

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