

Poster presentation

The effect of *Salvia leriifolia* root extracts on lipid peroxidation level during global cerebral ischemia-reperfusion injury in rat hippocampus

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from International Society on Brain and Behaviour: 3rd International Congress on Brain and Behaviour
Thessaloniki, Greece. 28 November – 2 December 2007

Published: 17 April 2008

Annals of General Psychiatry 2008, **7**(Suppl 1):S295 doi:10.1186/1744-859X-7-S1-S295

This abstract is available from: <http://www.annals-general-psychiatry.com/content/7/S1/S295>

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Background

The previous pathological data has revealed that *Salvia leriifolia* root extracts have a neuroprotective activity against cerebral ischemia, thus the effect of the root extracts on lipid peroxidation was evaluated using experimental global ischemic-reperfusion in the rat hippocampus.

Materials and methods

Cerebral ischemia was induced using four-vessel-occlusion (4VO) method for 20 min. The aqueous and ethanolic extracts (0.1, 0.2 and 0.4 g/kg), phenytoin, as positive control, (50 mg/kg) and normal saline (10 ml/kg) were administered intraperitoneally 15 min after the induction of ischemia and the administration was continued every 24 hours for 72 hours after induction of ischemia. The malondialdehyde (MDA) level was measured by the thiobarbituric acid (TBA) test.

Results

The transient global cerebral ischemia induced a significant increase in MDA level ($p < 0.001$) in comparison with sham-operated animals. The MDA levels were recovered significantly upon phenytoin and the extracts therapy in the hippocampus of ischemic rats.

Conclusions

These results suggest that *S. leriifolia* root extracts may have some protective effects against lipid peroxidation during global cerebral ischemia-reperfusion injury in rat hippocampus.