

The anticonvulsant effect of *Citrus aurantium* flowers

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Background and Aims: *Citrus aurantium* is used traditionally for several medicinal purposes such as insomnia, anxiety and epilepsy. The present study was designed to investigate the anticonvulsant effect of *Citrus aurantium* L. flowers essential oil (Neroli).

Methods: Anticonvulsant activity induced by intravenous administration of pentylenetetrazole (PTZ, 0.5 mg/kg) and maximal electroshock test (MEST).

Results: Intraperitoneal administration of Neroli (20, 40 mg/kg) 1 hour before PTZ increased clonic seizure threshold compared to vehicle (sweet almond oil, $P < 0.01$). The combination of subeffective dose of Neroli (20 mg/kg) and diazepam (0.25 mg/kg) potential the anticonvulsant effect that inhibited by flumazenil (0.5 mg/kg).

Conclusions: It seems that Neroli have anticonvulsant effect in PTZ induced seizure model and electroshock. These effects may be related to effect of it on GABAergic system.

Keywords: *Citrus aurantium*; Anticonvulsant; Neroli; MEST