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 (sweat 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 on GABAergic system.

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