

## Evaluation of sedative-hypnotic effect of *Myrtus communis* L. aqueous extract in mice

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**Background and Aims:** *Myrtus communis* L. (Myrtaceae) commonly called Myrtle (English), an evergreen shrub, has been used for treatment of inflammatory and respiratory diseases in Iranian traditional medicine. In several studies the antibacterial, anti-inflammatory, antioxidant, and antinociceptive effects of the aqueous and ethanolic extracts of this plant have been shown and involvement of opioid system in the analgesic effects has been suggested. In this study the sedative-hypnotic effect of the aqueous extract was evaluated by using experimental setup in mice.

**Methods:** Male NMRI mice in the range of 22-35 g of weight were used in this study. Pentobarbital induced loss of righting reflex was used for evaluation of hypnotic effect of the extract. Open field test was used for evaluation of locomotor activity.

**Results:** The aqueous extract of Myrtle in dose of 200 mg/kg i.p. significantly reduced locomotor activity in open field test ( $p < 0.01$ ). The significant hypnotic effect of aqueous extract of Myrtle in pentobarbital induced loss of righting reflex test was also showed ( $p < 0.05$ ).

**Conclusions:** These findings reveal that the aqueous extract of *Myrtus communis* L. has sedative-hypnotic effect and has potential use for treatment of insomnia. For determination of exact mechanism of action and the active components of the aqueous extract further studies are necessary.

**Keywords:** *Myrtus communis* L; Sedative-hypnotic; Locomotore activity; Righting reflex