Effect of aqueous extract of Ducrosia Anethifolia on sleep induced by Pentobarbital in male Wistar rats

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Abstract

Background & Aim*:* Insomnia is one of the problems that chronically affects many people for various reasons. Regarding the complications and difficulties of insomnia and also long-term use of sleeping pills which have many side effects, using medicinal plants have been considered by many researchers. The present study was undertaken to evaluate the effects of intraperitoneal injection of aqueous extract of Ducrosia Anethifolia on sleep induced by Pentobarbital.

Methods**:** In this experimental study, male wistar rats (200–250 grams) were used and divided into control, sham and four treatment groups that intraperitoneally received different concentrations of Ducrosia Anethifolia extract (25, 50, 100, 200 mg/ kg). After 30 minutes of injection, all the groups received pentobarbital sodium (60 mg/kg i.p.) and hypnotic behaviors were recorded using Righting reflex.

Results**:** Ducrosia Anethifolia extract accelerated the onset of sleep in all doses compared to the control group which this increase was significant at doses of 100 and 200 mg/ kg ($p<0.01$). Moreover, the extract significantly increased righting reflex period compared to the control group ($p<0.05$).

Conclusion**:** The aqueous extract of Ducrosia Anethifolia accelerates sleep onset and increases sleep period.

Keywords: Sleep, Ducrosia Anethifolia, Rat