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Abstract

Evaluation of anti-nociceptive and anti-inflammatory activities of hydroalcoholic extract derived from root of *Apium graveolens* L. in mice

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Background and objectives: *Apium graveolens* L. (celery) has been considered as sedative, analgesic, carminative, antispasmodic and diuretic plant in traditional Iranian medicine. The aim of the present study was to evaluate the anti-nociceptive and anti-inflammatory effect of celery root in mice. **Methods:** Analgesic effect of celery root was determined by two animal models of hot plate and acetic acid writhing test. Anti-inflammatory potential of the extract was also determined by formalin induced ear edema and xylene induced paw edema tests. **Results:** The result showed no significant difference between the positive control group and the test group in hot plate test and the most effective dose of celery root was 200 mg/kg, while the frequency of writhings was significantly different in whole test groups in comparison with control group ($p<0.05$), the extract (100, 200 and 400 mg/kg) significantly suppressed inflammation in formalin induced edema 60 and 120 min after injection. Celery root extract (200 and 400 mg/kg) also demonstrated considerable antiedematogenic effect in xylene test. **Conclusion:** Celery root showed analgesic and anti-inflammatory effects, which must be related to the flavonoids and resins present in the constituents of celery.

Keywords: anti-inflammation, anti-nociceptive, celery

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