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**DETERMINATION OF THE ED₅₀ AND ANTINOCICEPTIVE ACTIVITY OF MAHALEB
CHERRY (*PRUNUS MAHALEB* L.) IN MICE**

Abstract

Herbs are the main part of traditional medical and dental practice. *P. mahaleb* L., a source of compounds useful for pharmaceutical industries. Aim of research to evaluate the antinociceptive effect of *P. mahaleb* L. Forty albino mice were used. *P. mahaleb* L. powder was given for animal orally at dose of (1, 5, 3, 12, 24) mg/kg. The antinociceptive effect was estimated by Hot-plate test. Median effective dose (ED50) of *P. mahaleb* L., determined by using up & down method. Difference between groups were done by one way analysis of variance and the least significant difference test (LSD). *P. mahaleb* L. at (3, 12, 24) mg/kg produce analgesic effects and increased in threshold of pain between pre and post treatment following 10 minute in comparison with 1.5 mg/kg at (6 ± 0.0) second and control at (7.0 ± 0.0) second group respectively. The analgesic effect of *P. mahaleb* L. after 20 minutes of administration significantly difference between pre and post treatment in dose (12, 24) mg/kg (10 ± 1.15) (12 ± 1.1) sec respectively in comparison with other lower doses (1.5, 3) mg/kg and control. *P. mahaleb* L. not produce a dose dependent analgesic effect in mice. The pain reaction time was increased after 2 min and the maximum analgesic effect after 10 min of oral *P. mahaleb* L. administration in dose (3, 12, 24) mg/kg and duration of analgesia last from 2 min to 20 min. *P. mahaleb* L. possess analgesic activity, it can be useful as a good natural source of compound in pharmaceutical industry.