



## Evaluation of the analgesic effects of the aerial parts extract of *Pedicularis wilhelmsiana* in male rats in formalin test

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**Background and Aims:** There are different reports demonstrating analgesic and anti-inflammatory effects of flavonoids and phenylethanoid glycosides by medical plants in different animal models. The genus *Pedicularis* is known to produce flavonoids and phenyl ethanoid compounds. In the present study the probable analgesic effects of methanolic extract of the aerial parts of *Pedicularis Wilhelmsiana* was investigated.

**Methods:** Rats were administrated the above methanolic extract (50, 100, 200 mg/kg; ip; n=7 per group). Vehicle (Normal saline + DMSO %30) was injected ip to the control group. There were positive control groups receiving morphine 5 mg/kg; ip and indomethacin 40 mg/kg; ip.

**Results:** the total extract of *Pedicularis Wilhelmsiana* (50, 100, 200 mg/kg) exerted significant antinociceptive effects in the second phase of formalin test ( $p < 0.001$ ) that was similar to indomethacin. On the other hand morphine exerted analgesic effects in the both phases of formalin test.

**Conclusions:** These findings confirm that *Pedicularis Wilhelmsiana*, similar to NSAIDs, exhibits analgesic effects in the second phase of formalin test.

**Keywords:** *Pedicularis wilhelmsiana*; Nociception; Formalin test