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 Wilhelmisiana 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 Wilhelmisiana (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 both phases of formalin test.

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

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