

Poster presentation

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## The effects of peripheral and central administration of hypericum perforatum L and the role of alpha-adrenergic system

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### Background

In this study, the effect of peripheral and central administration of aqueous extract *Hypericum Perforatum L* (HP) on acute and chronic pain models using formalin and tail flick tests were evaluated.

### Materials and methods

At first stage, for assessment of the antinociceptive effect intraperitoneal (i.p) of different dose of HP were used, in later stage, for central effects HP was filtered and administered intrathecal (i.t) and intracerebroventricular (i.c.v) and the last, Yohimbine and Prazocin were administered before i.p injection of it.

### Results

HP (i.p) with the above mentioned doses significantly produced analgesia in both tests. HP induced analgesia in the first phase of formalin and tail flick tests, while at higher dose produced analgesia in both phases of formalin and tail flick tests. The i.c.v administration of HP produced analgesia in both phases of formalin test, while it had no effect on tail flick latency. Yohimbine significantly reversed antinociceptive effect HP in the first phase of formalin test. Prazocin had no significant effect on formalin and tail flick tests.

### Conclusions

According to our results peripheral and central administration of HP can produced analgesia. HP has an antinociceptive effect at spinal and central levels, and spinal effect seems to be more potent. Further investigation of the role

of other neurotransmitter system such as opioidergic and serotonergic system is recommended.

### References

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