

3rd International Conference on Surgery and Anesthesia

November 17-19, 2014 Chicago, USA

Effect of alcoholic extract of *Ferula assafoetida* on chronic pain in rat

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Background: The use of medicinal plants to reduce pain is important. *Ferula assafoetida* has been introduced as an analgesic agent in traditional medicine and is widely used to relieve neuropathic pain. The aim of this study was to investigate the analgesic effect of *Ferula assafoetida* ethanolic extract on chronic pain.

Methods: This study was carried out on 40 mice weighing 300-350 g. chronic pain was investigated using a formalin test. In this experiment 40 mice were divided into 5 groups as follows: Control group, experimental groups 1,2 and 3 received 75, 150 and 300 mg/kg of alcoholic extract, respectively; experimental group 4 received 100 mg/kg ibuprofen. The effect of ethanolic extract was compared with the analgesic effect of ibuprofen as standard analgesic drugs. Data were analyzed by SPSS using Tukey test.

Result: Results obtained from this study showed that the ethanolic extract of *Ferula assafoetida* produced an analgesic effect ($P < 0.05$) at two doses of 150 and 300 mg/kg, i.p. The analgesic effect of extract was not lower than that of ibuprofen (100 mg/kg) ($P < 0.05$).

Conclusion: The analgesic effect of *Ferula assafoetida* was also comparable to that of ibuprofen, well known for their analgesic effects. Further investigations to establish a link between the analgesic effect of *Ferula assafoetida* and particular phytochemicals, are recommended.

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