

## The anti-inflammatory effect of hydroalcoholic extract aerial parts of *Ferula szowitziana* on male rat

**Subject:** Other related topics- **Inflammation**

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**Background and Aim:** Inflammation is a tissue response to an injury, often injury caused by invading pathogens. It is characterized by increased blood flow to the tissue that increased temperature, redness, swelling and pain. Inflammatory abnormalities are a large group of disorders that underlie a vast variety of human diseases and the available Non-steroidal anti-inflammatory drugs (NSAIDs) has many side effects. Therefore it seems to be necessary to find medicines with least side effect.

**Methods:** Hydroalcoholic extract from stem and leaves of *Ferula szowitziana* was prepared. Tween 80, ethanol and saline was used as solvent. All the treatments performed intraperitoneally (i.p.). Animals were arranged in five groups (n=7) of male Wistar rats (weighing 200-250 g), consist of control, sham (solvent) and three groups of plant extract ( 50-100-200 mg/kg, i.p.). Inflammation were tested by formalin induced paw edema and measured by plethysmometer method.

**Results:** Data showed a significant reduction in the volume of paw edema and inflammation specially at the dose of 200 mg/kg i.p. ( $p<0.01$ ).

**Conclusion:** This anti-inflammatory effect arised from the results, can possibly be due to the plants monoterpenes such as  $\alpha$  pinene,  $\beta$  pinene, caryophyllene which they showed anti-inflammatory effect in the other plants species.

**Keywords:** Paw edema, *Ferula szowitziana*, Monoterpens, Rat

## Hydroalcoholic extract of stem and leaves of *Ferula szowitziana* affects chemical pain sensation in the rat

**Subject:** Pain

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