

Evaluation of ethanolic extract of *Citrullus lanatus* seeds for analgesic and anti-pyretic activity in animal model

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ABSTRACT

Objective: This current study was design to identify the effect of analgesic and antipyretic activity for ethanolic seed extract of *Citrullus lanatus* seeds.

Methodology: The study was carried out using Sprague-Dawley rats (250-300g) and Albino mice (25-30g). Tramadol and Paracetamol are the standard drugs, was prepared by dissolving in distilled water to make the concentration of 20mg/kg and 150mg/kg for analgesic and antipyretic activity respectively. The effect of ethanolic extract of *Citrullus lanatus* seeds was investigated for analgesic activity through tail immersion method and for antipyretic activity through yeast induced pyrexia method

Results: The analgesic activity was evaluated using tail immersion method in mice. The ethanolic extract of *Citrullus lanatus* seeds was shown highly significant ($p < 0.001$) analgesic activity at high dose which is almost comparable to standard drug and at low dose (200 mg/ kg) showed less significant ($p < 0.05$) analgesic activity. In antipyretic activity, the ethanolic extract of *Citrullus lanatus* seeds was shown highly significant ($p < 0.001$) at high dose and at low dose (200 mg/ kg) respectively. The ethanolic extract of *Citrullus lanatus* seeds in both low and high dose showed highly significant at 4th hour which is almost comparable to standard drug.

Conclusion: The findings of the present study concluded that *Citrullus lanatus* seeds have potential to treat pain and fever and as a good source, novel natural analgesic and antipyretic agents. The ethanolic extract of *Citrullus lanatus* seeds showed highly significant analgesic and antipyretic activity in mice and rats respectively.

Keywords: *Citrullus lanatus*, Analgesic, Antipyretic, Ethanolic seed extract, Tail immersion and Yeast induced pyrexia test.
