Print ISSN: 2319-2003 | Online ISSN: 2279-0780

IJBCP International Journal of Basic & Clinical Pharmacology

DOI: http://dx.doi.org/10.18203/2319-2003.ijbcp20182094

Original Research Article

Evaluation of the antipeptic ulcer activity of the seed extract of sesame (*Sesamum indicum*) in stress induced peptic ulcers in rats

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Received: 22 February 2018
Revised: 14 April 2018
Accepted: 25 April 2018

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ABSTRACT

Background: The peptic ulcers can be developed inside the inner lining of the stomach (gastric ulcer) or the small intestine (duodenal ulcer). Around 10% population of the world is suffering from the peptic ulcer disease. From the ancient times there is a reference about herbal extracts like *Sesame indicum* for the treatment of various diseases. The aim of the study is Evaluation of the anti-peptic ulcer activity of the seed extract of sesame (*Sesamum indicum*) in stress induced peptic ulcers in rats.
Methods: The study was carried out by stress-induced ulcer model in wistar rats. The antiulcer activity of *S. indicum* (0.5, 1mg/kg p.o. for 7 days) was compared with standard drugs (pantoprazole). The studied parameters were mucin content, gastric volume, pH, total acidity, free acidity, ulcer index, size and number.
Results: The low and high dose of *S. indicum* extract significantly reduced gastric mucosal lesion, mucin content, volume of gastric juice, gastric pH, free and total acidity when compared to positive control group. The high dose of *S. indicum* extract showed comparable results in parameters like effect on mucin content, gastric volume, pH, free acidity and total acidity with standard group. The statistical significant changes noted only in ulcer size, number and index.
Conclusions: Although the high dose *S. indicum* (1mg/kg) group showed significant gastric protection against ulcer induced by cold restraint method. However, no clear inference can be drawn at this stage and hence there is a need for further extensive research.

Keywords: Anti-peptic ulcer effect, Gastric ulcer, *Sesamum indicum*