Potential Effect of *Citrus decumana* Extract on Stress Induced Peptic Ulcer in Rat

Shailja SOOD 1*, Arunachalam MUTHURAMAN 1, Bhwana ARORA 1, Stuti BANSAL 1, Manoj BALI 2 & Pritam D. SHARMA 3

1 Rayat Institute of Pharmacy, Nawanshahr District, Railmajra, Near Ropar, Punjab-144533 (India).
2 Rayat Institute of Engineering and Technology, Ropar Campus, Railmajra, Punjab-144533 (India).
3 University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh (India).

SUMMARY. The present study was designed to investigate the antiulcer activity of ethyl acetate extract of *Citrus decumana* (grapefruit) peels. The antiulcerogenic activity was evaluated in water immersion and hypothermic restraint stress models at different doses (150, 250 and 350 mg/kg). The antiulcer potential of the extract was assessed by determining and comparing the ulcerative index and biochemical estimation was carried out using various oxidative stress markers i.e., TBARS, GSH, SOD and CAT in the blood and tissue samples. The highest dose (350 mg/kg) of the extract showed significant decrease in the ulcerative index and biochemical estimation was carried out using various oxidative stress markers i.e., TBARS, GSH, SOD and CAT in the blood and tissue samples. The highest dose (350 mg/kg) of the extract showed significant decrease in the ulcerative index and TBARS level, whereas there was increase in the GSH, SOD and CAT levels. Whereas the lowest and medium dose (150 mg/kg and 250mg/kg) did not produce any significant results. Therefore, our study indicate that the *Citrus decumana* peel extract may be used as a natural therapeutic agent in the treatment of peptic ulcers.

KEY WORDS: Antiulcer activity, *Citrus decumana* peels, oxidative stress markers.

*Author to whom correspondence should be addressed. E-mail: soodshalurayat@gmail.com