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Pharmacognostic and pharmacological potency of Psidium guajava L.

Mital J. Kaneria Saurashtra University, India

Psidium guajava L. known as Guava is a medicinal plant belonging to the family Myrtaceae. *P. guajava* is a well known traditional medicinal plant used in various indigenous systems of medicine. It is widely distributed throughout India. The present study was designed to evaluate the therapeutic assessment of acetone extract of *Psidium guajava* L. leaves (PGA) by evaluating pharmacognostical, physicochemical, toxicological and antiulcer properties. Pharmacognostic study was carried out by macroscopic, microscopic and powder study. Extraction was done sequentially in soxhlet apparatus. Acute toxicity test was conducted by oral route in Wistar albino rats. For toxicity study, PGA was administered to male and female rats at a dose range of 540, 1080 and 2160 mg/kg of body weight. Animals were observed for physiological and behavioral responses, mortality, feed and water intake and body weight changes up to 14 days. After 14 days, the animals were sacrificed and hematological parameters were analyzed. Antiulcer activity was evaluated by two models viz. ethanol and ethanol/HCl induced ulcers at two different doses (135 and 270 mg/kg) in Wistar albino rats. Various secretory parameters were not affected by the treatment of PGA did not cause any toxicity to rats. Feed and water intake and body weight changes were of gastric juice, pH, free acidity as well as total acidity in rats. The antiulcer activity observed in PGA treatment groups was better than that of the standard group. Overall, the findings of this study indicate that PGA is non-toxic in acute oral administration. This work suggests that *Psidium guajava* could be used for the development of new phytotherapeutic drugs for the treatment of gastric ulcer.

Biography

Mital J. Kaneria has done M.Sc. in 2008 in Botany from Saurashtra University, Rajkot, India. He has completed his Ph.D. in 2012 in Botany at the age of 26 years under the guidance of Dr. Sumitra Chanda, Professor, Department of Biosciences, Saurashtra University, Rajkot, India. He is a lecturer at Department of Biosciences (UGC-Centre for Advanced Studies), Saurashtra University, Rajkot, India. He has published 20 research papers in different national and international journals of repute and has contributed 7 book chapters. Besides, he has good number of poster and oral presentations in national and international conferences to his credit and got prizes for best presentations.