

EVALUATING THE SAFETY PROFILE OF RASNA SAPTHAKAYA DECOCTION IN SINGLE DOSE AND LONG TERM ORAL ADMINISTRATION IN RATS

R Sanjeev^{1#}, TS Suresh², K Samarasinghe³ and SG Yasawardene⁴

¹Department of Human Biology, Faculty of Health-Care Sciences, Eastern University, Batticaloa, Sri Lanka

²Department of Biochemistry, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

³Department of Pathology, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

⁴Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

#r_varthani@yahoo.com

Rasna sapthakaya decoction is an Ayurvedic preparation of seven herbal ingredients which is used to treat chronic inflammatory joint diseases. The objective of this study was to investigate the safety of *Rasna sapthakaya* decoction for single dose and long term oral administration. The decoction was prepared according to the standard Ayurveda method. To evaluate the acute toxicity effect of the decoction, the test group of healthy male Wistar rats received a single dose of *Rasna sapthakaya* decoction (2.5 ml) at the human therapeutic dose (40mg / kg /day) and the control group received 2.5ml of water. Mortality, clinical signs, body weight changes and biochemical parameters were monitored for 48 hrs. To investigate the chronic toxicity effects, *Rasna sapthakaya* decoction (40mg / kg /day) was administered to the test group and control group received 2.5 ml of water for consecutively 42 days. Mortality, clinical signs, body weight changes, food and water consumption changes were monitored during the study period. At the end of the study, the rats were sacrificed; blood was drawn for haematological (full blood count) and biochemical analysis (serum ALT, ALP, AST, γ GT, Creatinine and Urea). The heart, liver and kidneys of both groups were harvested for histo-pathological investigation. The results of single dose and long term usage revealed oral administration of *Rasna sapthakaya* did not result in any significant changes in mortality, clinical signs, body weights and food and water consumption. The haematological and serum biochemical analysis showed no statistically significant changes ($p>0.05$) compared with the control group. The histopathology study revealed no significant evidence of necrosis, fatty changes, inflammation or other evidence of toxicity in liver, heart or kidney. Thus it can be concluded that single dose and long term repeated oral administration of *Rasna sapthakaya* decoction does not cause any adverse effects in rats at the human therapeutic dosage.

Keywords: *Rasna Sapthakaya* Decoction, Biochemical Analysis, Histopathology