

Evaluation of Chronic Toxicity of FADNA EZY herbal tea in Wistar Rat Model

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FADNA EZY tea is a commercially available herbal tea in Sri Lanka, comprising of freeze-dried product of *Coriandrum sativum* (Koththamalli), *Oroxylum indicum* (Thotila), *Tribulus terrestris* (Heennerenchi), *Apiumgraveolens* (Asamodhagum), *Boerhavia diffusa* (Behethsarana) and *Embelia ribes* (Walangasahal). This tea is recommended as a readily available remedy for women suffering from severe menstrual cramps. The present study investigates the chronic toxicity of FADNA EZY tea using a rat model to ensure its safety for consumption. For the chronic toxicity assay, a human equivalent dose of 2.5 mL/kg BW of FADNA EZY tea (3 cups per day) was (water extract) administered orally to Wistar rats as the test group, and distilled water as the control (n=6/group) for consecutive 90 days. Morphological, haematological, liver and kidney toxic parameters were measured in both groups and statistically compared to evaluate the toxic effects. Further, proximate analysis and chemical fingerprinting were conducted to identify the physical and chemical properties of the tea. Chronic administration of FADNA EZY tea did not cause any mortality, abnormal behaviour or changes in body weight, food and water intake. Further, there were no significant differences in haematology, liver (liver enzymes), kidney (urea and creatinine) and biochemical parameters (serum LDH and total protein) between treatment and control groups (p> 0.05). In conclusion, oral administration of FADNA EZY tea for 90 days did not cause any significant alterations in behavioural, haematological, liver, kidney and biochemical parameters of rats. Thus, ensures the safety of the FADNA EZY tea in terms of a rat model.

Keywords: FADNA EZY tea, Toxicity, Wistar rat, menstrual cramp