

# Erythrocyte and Platelet Counts Analysis and Effect in Female Wistar Rats after Prolonged Administration of Aqueous Fruit Pulp Extract of *Raphia Hookeri* Plant

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**Abstract:** *This research aimed to analysis the effects of the prolonged administration of aqueous fruit pulp extract of Raphia hookeri fruit on erythrocyte indices and platelet counts in female Wistar rats. A total of 28 female Wistar rats, weighing 130g to 200g, were grouped into four (4) groups, with Group 1 as the control. The control group was provided standard feed and water, while Group 2 received 1000 mg/kg, Group 3 received 2000 mg/kg, and Group 4 received 3000 mg/kg body weight daily for 28 days. After the treatment period, blood samples were collected, and parameters such as erythrocyte count and platelet count were analyzed using standard haematological techniques. Statistical analysis was done with SPSS version 21.0, and results were expressed as mean  $\pm$  standard error of the mean (SEM), with  $p < 0.05$  considered statistically significant. Results showed erythrocyte counts of  $5.80 \pm 0.12$  in the control group, with a significant decrease in treated groups 2, ( $5.00 \pm 0.58$ ), 3 ( $4.40 \pm 0.17$ ) and 4 ( $4.80 \pm 0.12$ ). Platelet counts also showed a dose-dependent decrease, with values of  $250.00 \pm 1.15$  in the control and significantly lower counts of  $120.00 \pm 2.89$ ,  $100.00 \pm 1.73$ , and  $94.00 \pm 2.31$  in Groups 2, 3, and 4, respectively. These findings indicate that higher doses may significantly impact erythrocyte and platelet parameters, suggesting potential risks associated with prolonged high-dose administration.*

**Keywords:** Erythrocyte, Platelet, Raphia Hookeri, Fruit Pulp, Wistar Rat