

## Effect of *Chromolaena odorata* leaf extract on haematological profiles in *Salmonellae typhi* infested Wistar rats

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**ABSTRACT:**

Haematological indices provide an insight about the internal environment of a given organism. In this present study, the possible anti-haematotoxic effect of *Chromolaena odorata* on *Salmonellae typhi* – induced haematotoxicity in rats were investigated. The experimental animals were divided into three groups. Group A received only food and water (control). Group B and C received in addition to food and water, single dose of stock *Salmonellae typhi* at a dose of 10<sup>6</sup>cfu/ml. The animals in group B and C were allowed to be infected with *Salmonellae typhi* for 7 days and confirmed by widal test, after which group C was treated with 750mg/kg body weight/day ethanolic extract of *Chromolaena odorata* for 10 days. The result showed a significant ( $p < 0.05$ ) decrease in Red Blood Cells (RBC) count, packed cell volume (PCV), haemoglobin (Hb), mean corpuscular haemoglobin (MCH), Mean Corpuscular haemoglobin Concentration (MCHC), neutrophil and increase in platelet, total White Blood Cell (WBC) and lymphocytes in animals infected with *Salmonellae typhi* when compared to the control non-infected group. Treatment of animals in group C with ethanolic extract of *Chromolaena odorata* showed a significant ( $P < 0.05$ ) increase in mean values of RBC count, PCV, Hb, MCH, MCV, MCHC and decrease in platelets, WBC and lymphocytes when compared to the group infested with *Salmonellae typhi* only. The results above suggest the anti-haematotoxic potential of ethanolic extract of *Chromolaena odorata* in *Salmonellae typhi* infested rats.

**Keywords:**

*Salmonellae typhi*, *Chromolaena odorata*, Blood cells, Anti-haematotoxic, Rats.