Abstract

An *in vivo* study was carried out to determine the effect of different types of Kenyan tea extracts on male Swiss albino mice infected with *Trypanosoma brucei brucei* isolate KETRI 2710. The isolate produced a similar clinical picture after a pre-patent period of 5 days post-infection (DPI). Parasitemia levels in the untreated mice and those given different teas developed exponentially at similar rates reaching similar densities at the peak of parasitemia 8 DPI. Between 9 and 13 DPI parasitemia decreased more rapidly in tea treated compared to the untreated mice which indicated that tea lowered parasitemia level. Anaemia indicated by a fall in erythrocyte packed cell volume (PCV) occurred within 4 DPI and remained below the normal levels until the terminal stages of the disease. A significant difference ($P < 0.05$) was observed 11 DPI between the tea treated and the untreated mice indicating that tea enhanced resistance to erythrocyte destruction. Mice treated with tea exhibited significantly ($P < 0.01$) reduced parasite-induced hypoalbuminemia as compared to the untreated. Since albumin is a negative acute phase protein, it shows a decrease during inflammatory conditions and therefore its elevation in the mice given tea in this study clearly demonstrated that tea ameliorated inflammation induced by *T. b. brucei.* Although green and white teas were superior in most of these characteristics, black tea, which is the principle tea product from Kenya, displayed remarkable properties some even comparable to those of green tea. Interestingly, tea was more efficacious than dexamethasone an established anti-inflammatory drug, demonstrating its therapeutic potential.