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Antiplasmodial activities of combination therapy of methanolic leaf extract of *Anogeissus leiocarpa* and *Terminalia avicennioides* on malaria parasite count and its effect on some organs in mice infected with *Plasmodium berghei*

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Statement of the Problem: Methanolic leaf extracts of *A. leiocarpus* and *T. avicennioides* have been considered separately to have the same antimalarial activities as artemether derivatives. This work studied the antimalarial activities of combined methanolic leaf extracts of Anogeissus leiocarpus and *Terminalia avicennioides* and their effects on the liver function, body weight and lipid profiles in mice infected with *Plasmodium berghei*.

Methodology & Theoretical Orientation: Mice used for this study were divided into six groups. The first group (normal control) was not infected with *Plasmodium berghei*; the second group was infected with the malaria parasite but not treated (negative control). The third group was infected with the parasite and treated with combisunate at 5 mg/kg body weight (positive control), the fourth, fifth and the sixth groups were treated with 100, 200 and 400 mg/kg body weight of combined methanolic leaf extracts of the two plants. The parasitemia was monitored for five days.

Findings: There was significant increase ($P<0.05$) in the parasite density in negative group when compared with the positive group and the groups treated with 100, 200 and 400 mg/kg body weight of combined extracts. Parasitaemia levels were drastically reduced in mice treated with 400 mg/kg body weight of combined methanolic leaf extracts when compared with other groups. The average body weight of experimental animal used, and the HDL level were significantly higher in the group treated with 100mg/kg body weight when compared with the group treated with 400 mg/kg body weight of combined therapy, while liver enzymes activities were significantly higher ($P<0.05$) in the group treated with 400 mg/kg body weight.

Conclusion: Though parasite elimination rate was higher in the group treated with 400 mg/kg body weight, but its effect on liver function, body weight and lipid profile was the best at 100 mg/kg body weight. Therefore, there is a need for close watch if this combination has to be used at 400 mg/kg body weight.

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