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In vivo anti-trypanosomal activity of the leaf extracts of *Albizia schimperiana* (Fabaceae) against *Trypanosoma congolense* infection in mice

Amene Tesfaye¹, Getachew Terefe², Mirutse Giday² and Workineh Shibeshi²

¹Jimma University, Ethiopia

²Addis Ababa University, Ethiopia

The chemotherapy of African animal trypanosomiasis, a fatal protozoal disease of animals, is beset with many problems including drug toxicity and parasite resistance, emphasizing the urgent necessity in finding new alternative drugs. The objective of this work was to evaluate effect of dichloromethane (DCM) and methanol (MeOH) extracts of the leaf of *Albizia schimperiana* against *Trypanosoma congolense* using in vivo mice models. The leaf of the plant was extracted by maceration technique using DCM and absolute MeOH to obtain the corresponding crude extracts. The extracts were screened for secondary metabolites and anti-trypanosomal activity of the crude extracts was evaluated at doses of 50, 100, 200 and 400 mg/kg in Swiss albino mice infected with *T. congolense* isolated from natural infection of cattle. The animals were monitored for test parameters including parasitemia, packed cell volume, rectal temperatures and body weight and survival. The acute toxicity test showed that both solvent extracts were safe at doses of up to 2 g/kg. The methanolic extract at 100, 200 and 400 mg/kg showed a statistically significant ($p < 0.05$) trypanosuppressive effect, but were unable to completely clear trypanosomes. Significantly ($p < 0.05$) higher packed cell volume (PCV), weight and survival time were observed in groups treated with higher doses of methanol extracts, however, the DCM extract treated mice has not showed statistically significant ($p > 0.05$) reduction in parasitemia except 400 mg/kg dose. It can be concluded that MeOH extract has promising activity against *T. congolense* in mice by reducing the levels of parasitemia and the activities may be due to presence of alkaloid, flavonoid and saponins which are responsible for anti-trypanosomal activity.

amene.tesfaye@ju.edu.et