# Screening of selected medicinal plants for activity against *Trypanosoma brucei rhodesiense*.

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## ABSTRACT

**The *in vitro* and *in vivo* antitrypanosomal activities of five plants species which are *Kigelia africana, Artemesia annnua, Bidens pilosa, Azadirachta indica* and *Senna didymobotyra* traditionally used in Kenya for treatment of parasitic diseases were evaluated. Dichloromethane, Methanol, Hexane, Ethyl acetate and Aqueous extracts of stem bark, fruits, leaves and pods of the five plants were evaluated for *in vitro* activity against *Trypanosoma brucei rhodesiense* KETRI 3798 isolate. Nineteen plant extracts were tested and six were active with MIC< 100μg/ml while four extracts afforded MIC values ranging from 3.91 to 62.6μg/ml respectively. Two of plant extracts, however, had low MIC values of between 3.91 and 11.42μg/ml.**

**All the extracts tested *in vitro* were also tested for *in vivo* antitrypanosomal activity in mice, experimentally infected with *T.b. rhodesiense* KETRI 3798. The results of *in vivo* studies showed that only one of the extracts, *Kigelia africana* was able to stop trypanosomes from establishing and multiplying in the animals. In the acute toxicity test, administration of 250mg/kg, 500mg/kg and 1000mg/kg of plant extracts, produced neither mortality nor significant reduction in body weight and packed cell volume between controls and the treated animals. Moreover, no gross lesions and histopathological changes were detectable between controls and the treated animals indicating that the extracts were safe and effective for the management of *T.b. rhodesiense*. Bio-guided fractionation, isolation and characterization studies of compounds from the extracts will yield information on the active compounds and their mechanism of action.**