

## In Vitro activities of plant extracts from Saudi Arabia against malaria, leishmaniasis, sleeping sickness and Chagas disease.

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The in vitro activity of the methanol extracts of 51 plants randomly collected from the Kingdom of Saudi Arabia and some of their fractions (petroleum ether, chloroform, ethyl acetate and aqueous) were evaluated against *Plasmodium falciparum*, *Trypanosoma brucei brucei*, *T. cruzi* and *Leishmania infantum*, as well as toxicity against MRC-5 fibroblast cells. Ten crude methanolic extracts that demonstrated potent and adequately selective antiprotozoal activity were subjected to solvent fractionation using petroleum ether, ethyl acetate and chloroform. Only three samples showed promising antiprotozoal activity. *Argemone ochroleuca* (CHCl<sub>3</sub>) fraction) showed pronounced activity against *P. falciparum*(GHA) (IC<sub>50</sub> 0.32 mug/mL) and *T. cruzi* (IC<sub>50</sub> 0.30 mug/mL) with low cytotoxicity against MRC-5 cells (CC<sub>50</sub> 11.6 mug/mL). *Capparis spinosa* (EtOAc fraction) showed pronounced activity against *P. falciparum*(GHA) with an IC<sub>50</sub> 0.50 mug/mL in the absence of toxicity against MRC-5 cell line (CC<sub>50</sub> > 30 mug/mL). *Heliotropium curassavicum* (CHCl<sub>3</sub>) fraction) showed similar activity against *P. falciparum* (IC<sub>50</sub> 0.65 mug/mL; MRC-5 CC<sub>50</sub> > 30 mug /mL). These three extracts will be subjected for further extensive studies to isolate and identify their active constituents. Copyright (c) 2010 John Wiley & Sons, Ltd.