

ABSTRACT

The variable sensitivity and resistance of *Leishmania* parasites against different chemotherapeutic agents has become a serious problem thus necessitating the discovery of new line of drugs. Herbal derivatives are the alternative option at the moment. Ethanolic and aqueous extracts of *Ziziphus spina Christi* leaves used in folk medicine in Saudi Arabia was investigated for the first time as anti-*Leishmania* agent.

The extracts were tested in vitro on two *Leishmania* strains, *L.major*(FV1), and *L.donovani*(LV9). The most active was ethanolic extract giving 77.3% inhibition of the FV1 growth at 250ug/ml with highly significant value in compare to other extract concentrations $P < 0.001$, while aqueous extract inhibit 57.33% of LV9 growth at 250ug/ml with highly significant value in compare to the other concentrations $P < 0.001$.