

7th International Conference on **CLINICAL TRIALS**
&
12TH WORLD CADD & DRUG DELIVERY SUMMIT
September 24-26, 2018 | Chicago, USA

Phytochemical screening of the exudate of *Aloe otallensis* and its effect on *Leishmania donovani* Parasite

Tesfaye Zerihun

Addis Ababa University, Ethiopia

Objective: To evaluate the antileishmanial activity of methanolic extract of *Aloe otallensis* (*A. otallensis*) on the promastigote stage of *Leishmania donovani* (*L. donovani*) as compared to standard drugs and to screen its phytochemical constituents.

Methods: Phytochemical screening was done by using the method mentioned by Evans and Trease on the methanolic extract of the exudates of *Aloe otallensis* leaves. The extract was also evaluated for *in vitro* antileishmanial activity against *L. donovani* which is found in the Parasitology Unit of Black Lion Hospital. The result was compared to standard drugs of sodium stibogluconate, milfostin, and paramomycin.

Results: The extract has a good antileishmanial activity with an IC₅₀ of 0.123 0 µg/mL on *L. donovani* (AM 563). The experimental data showed that relatively it had better activity than paramomycin and milfostin but less activity than sodium stibogluconate. The data analyses were done by GraphPad Prism version 5 software after it was read by ELISA reader at the wavelength of 650 nm. The phytochemical screening of the exudates of *A. otallensis* showed the presence of phenol, alkaloid, and saponin.

Conclusions: The methanol extract of the exudates of *A. otallensis* has a good anti-leishmaniasis activity and this may be attributed to phenol, alkaloid, and saponin present in the plant. But it needs further analysis for the confirmation of which constituent presents in high concentration to know which one has the strongest effect.