Phytochemical Screening of the Exudete of *Aloe otallensis* and Its Effect on th *Leishmania aethiopica* and *Leishmania donovani*

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Abstract

Background & objectives*:* Several plant products have been tested and found to possess antileishmanial activity. The present study was undertaken to evaluate antileishmanial activity of methanolic extract of *Aloe otallensis* on the promastigot stage of *Leishmania aethiopica* and *Leishmania donovani* comparing to standard drugs and also tried to screen its phytochemical constitute.

Methods*:* Phytochemical screening was done using the method mentioned by Evan and Trease on Methanolic extract of the exudates to the leaf of *Aloe otallensis.* The Extract *was* also evaluated for in *vitro* antileishmanial activity against *Leishmania aethiopica* and *Leishmania donavan* on the strain of *L.aethiopica* (LDC/134) and *L. donovani* (AM 563), which is found from the black lion hospital parsitology unit. The result was compared to standard drug of Sodiumstibogluconate, milfostin and paramomycin.

Result. The extract has a good antileishmaniacidal activity with an IC_{50} of 0.041 µg/ml on *L.ethiopica* (LDC/134) and 0.123 µg/ml on *L.donovani* (AM 563). The experimental data shows that relatively it has better activity than paramomycin and milfostin but less activity than sodiumstibogluconate, which is given in Ethiopia as a first line drug. The data analyses was done by pad graph prison version 5 software after it was read by ELISA redder at the wave length of 650 nm. The phytochemical screening of the exudates of aloe otallensis showed the presence of phenol, alkaloid and saponin.

Conclusion: The methanolic extract of exudete of *Aloe otallensis* has a good anti leishmanisis activity relatively to paramomycin and milfostin and this activity may be attributed to phenol, Alkaloid and saponin presnt in the plant. But it needs further analysis for the conformation of which constituent present in much concentration and to know which one have highest role.