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Phytochemical screening of the exudete of *Aloe otallensis* and its effect on *Leishmania aethiopica* and *Leishmania donovani*

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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 was found from the Black Lion Hospital, Parsitology Unit. The result was compared to standard drug of Sodium stibogluconate, milfostin and paramomycin.

Result: The extract has a good antileishmanial activity with an IC50 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 sodium stibogluconate, 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 leishmaniasis activity relatively to paramomycin and milfostin and this activity may be attributed to phenol, alkaloid and saponin present in the plant. But it needs further analysis for the conformation of which constituent present in much concentration and to know which one has highest role

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