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Methanolic extract of the exudates of *Aloe otallensis* and its effect on *Leishmania aethiopica* parasite

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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 promastigote stage of *Leishmania aethiopica* comparing to standard drugs and also tried to screen its phytochemical constituents.

Methods: Phytochemical screening was done using the method mentioned by Evan and Trease on methanolic extract exudates of *Aloe otallensis* leaf. The extract was also evaluated for *in vitro* antileishmanial activity against *Leishmania aethiopica* which is found from the black lion hospital parasitology unit. The result was compared to standard drug of Sodium stibogluconate, milfostin and paramomycin.

Result: The extract has a good antileishmaniacidal activity with an IC₅₀ of 0.041 µg/ml on *L. aethiopica* (LDC/134). The experimental data shows that relatively it has better activity than paramomycin and milfostin but less activity than sodium stibogluconate. The data analyses was done by pad graph prison version 5 software after it was read by ELISA reader 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 methanol extract of exudate of *Aloe 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 conformation of which constituent present in much concentration and to know which one has the highest role.