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## Methanolic extract of the exudate of *Aloe otallensis* and its effect on *Leishmania aethiopica* parasite and its phytochemical screening

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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* 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 Paromomycin.

**Result:** The extract has a good antileishmanial activity with an IC<sub>50</sub> of 0.041 µg per ml on *L. aethiopica* (LDC/134). The experimental data shows that relatively it has better activity than Paromomycin and Milfostin but less activity than Sodium stibogluconate. The data analyses was done by Graph Pad Prism 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 antileishmanis 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 have highest role

### Biography

Nigusse Zerihun Tesfaye has completed Diploma in Chemistry from Kotebe Teaching College in 2006 and Bachelor of Pharmacy degree in 2011 from Addis Ababa University, Ethiopia. He was trained on the area of surveillance of insecticide resistance mosquitoes at KEMRI, Kenya Research Center. He is working as a Senior Clinical Pharmacist at Addis Ababa University, College of Health Science, Black Lion Specialized Teaching Hospital. He also serves as a Drug Supply Management Coordinator, The Head of Special Pharmacy of the hospital, the Secretary of Drug Therapeutic Committee (DTC) and other committee works

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