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In vitro* antileishmanial activity of methanolic and aqueous extracts of *Eucalyptus camaldulensis* against *Leishmania major**Iraj Sharifi, Seyyed Jafar Nosratabadi, Fariba Shariffar, Mehdi Bamorovat, Hamid Daneshvar and Mohammad Mirzaie**
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Pentavalent antimony compounds are expensive, toxic and drug resistance is prevalent, whereas the plant extract derivatives are safe. In the present study, the effect of methanolic and aqueous extracts of *Eucalyptus camaldulensis* on the promastigotes of *Leishmania major* was evaluated. The methanolic and aqueous extracts of *E. camaldulensis* leaves were prepared. The compounds were dried and powdered. Serial dilutions of the extracts and control drugs in phosphate buffer solution were prepared. The stationary phase promastigotes of *L. major* were incubated to the methanolic and aqueous extractions *in vitro*. Tartar emetic was used as the positive control drug. After 72 hours of incubation the activity of the extracts was measured using MTT method. The IC₅₀ values (50% inhibitory concentration) were 586.2±47.6 and 1,108.6±51.9 µg/ml for methanolic and aqueous extracts, respectively, whereas it was 32.5±6.8 µg/ml for tartar emetic. The results indicated that the methanolic extract was more effective than aqueous extract, although there was no significant difference. The extracts were less effective as compared to the control drug. Further investigation is required to evaluate these extracts on clinical stage in macrophage-amastigote model.

Biography

Iraj Sharifi is a Professor of Medical Parasitology, obtained his PhD from University of Illinois, USA and ever since, he has been teaching and doing research studies at the School of Medicine and Leishmaniasis Research Center, Kerman University of Medical Sciences, Iran. He has been the Dean of Faculty of Medicine for 4 years, Vice-Chancellor of Research for 5 years, Chancellor of the Kerman University of Medical Sciences for 13 years and Director of Kerman Leishmaniasis Research Center for 10 years. He has published 135 articles (75 international and 60 Persian).

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