

## عنوان مقاله:

Antileishmanial Activity of Carum Copticum Essential Oil Against Leishmania Major [MRHO/IR/Y5/ER]: An In Vitro Study

## محل انتشار:

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## خلاصه مقاله:

Background and Aims: Because of the toxicity and side-effects of synthetic drugs, there is a growing interest in biomedical plants. The aim of this study was to evaluate in vitro antileishmanial activity of Carum copticum essential oil against Leishmania (L) major. Materials and Methods: Nineteen experimental groups were designed to determine the effect of Carum copticum essential oil against L. major and compare it with Meglumine antimonite. Group ۱ was the control group and included ۲۰۰ µl of RPMI ۱۶۴۰ plus ۲×۱۰<sup>۵</sup> cells/ml promastigotes. Groups ۲-۱۰ included the aforementioned substances plus ۱۰ µl of ۰.۰۱, ۰.۰۲, ۰.۰۵, ۰.۱, ۰.۲, ۰.۵, ۱, ۲ and ۳ µg/ml of Carum copticum essential oil respectively. Groups ۱۱-۱۹ were similar to groups ۲-۱۰ but Meglumine antimonite (۰.۰۱, ۰.۰۲, ۰.۰۵, ۰.۱, ۰.۲, ۰.۵, ۱, ۲ and ۳ µg/ml) was used instead of Carum copticum essential oil. All the experiments were repeated five times. After ۸ hours, the antileishmanial activities of studied substances were determined. Results: Up to concentration of ۰.۵ µg/ml, no effect was observed with both substances. In comparison to control group, at ۱ and ۲ µg/ml, Meglumine antimonite had no effect on Leishmaniasis ( $p > 0.05$ ) while Carum copticum essential oil significantly decreased Leishmaniasis viability ( $p < 0.05$ ). Moreover, at ۳ µg/ml, both compounds significantly decreased Leishmaniasis viability ( $p < 0.05$ ). However, Carum copticum essential oil had substantially better Antileishmanial activity than the other. Conclusions: These results suggest that comparable concentrations, in vitro antileishmanial activity of Carum copticum essential oil is better than Meglumine antimonite.

## کلمات کلیدی:

Carum, Leishmania major, Leishmaniasis, Promastigotes, Cutaneous Leishmaniasis, Carum copticum, Anti Leishmanial activity, Leishmania major, Promastigote

## لینک ثابت مقاله در پایگاه سیویلیکا:

