

عنوان مقاله:

Anti-leishmanial activity of Pelargonium roseum Essential oil on the in vitro growth of Leishmania infantum promastigotes in comparison to Glucantime

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خلاصه مقاله:

Background and aims: Visceral leishmaniasis so called Kala-azar is one of the important health care problems in the world. Some herbal drugs are noticed because of toxicity and drug resistance against pentavalent antimonials as used in treatment of Kala-azar. In this study, anti-leishmanial activity of Pelargonium roseum Essential oil on the in vitro growth of Leishmania infantum promastigotes in comparison to Glucantime was studied. Methods: Different concentrations of Pelargonium roseum essential oil on culture of Leishmania infantum promastigote were surveyed with Anti-leishmania activity assays at ۲۴ hr and ۴۸ hr at ۵۷۰ nm wavelength. All the data were analyzed by using SPSS version and anti-leishmanial potency of the oil extract of Geranium in different concentration were compared with standard dose of Glucantime. Results: All concentration in ۲۴ hr showed no remarkable difference. ۲۵، ۵۰ and ۱۰۰ μ L/ml efficacy was same as Glucantime on the growth of promastigotes in ۲۴ hr MTT. All concentrations except ۱ μ L/ml in ۴۸hr MTT had resemble impact on the growth of promastigotes. ۵ μ L/ml concentration of Pelargonium roseum essential oil was significant difference effect on the parasite ($P= ۰.۰۴۳$) in ۴۸hr. Conclusion: Pelargonium roseum essential oil doesn't treat Leishmania infantum promastigote quickly. After ۴۸ hr, ۵ μ L/ml concentration can be a suitable candidate in clinical trials

کلمات کلیدی:

Leishmania infantum, Pelargonium roseum, Promastigote, Glucantime

