

عنوان مقاله:

Effect of Staphylococcus Aureus and Streptococcus beta-haemolytic Supernatants' on Leishmania Major Promastigotes Viability: An In Vitro Study

محل انتشار:

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خلاصه مقاله:

Background and Aims: Leishmaniasis is an intracellular protozoan- parasitic disease, the common vector of transmission. Both zoonotic and anthroponotic cutaneous leishmaniasis (CL) are endemic in different foci. With regard to the cutaneous form, ۱.۰-۱.۵ million cases were reported annually with ۹۰% of the cases. Although antimony-containing compounds that are the main drugs used to treat Leishmaniasis has been recommended for CL treatment by the World Health Organization, but there are some restrictions in this case, including high expense, side effects, frequent injections need, and incomplete efficacy. The current research was conducted the effect of Staphylococcus aureus and Streptococcus beta-haemolytic Supernatants' on Leishmania major promastigotes (PMs) viability: an in vitro study. **Materials and Methods:** Staphylococcus aureus and Streptococcus beta-haemolytic cultured for preparing supernatant, then Leishmania (L) major strain [MRHO/IR/۷۵/ER] PMs cultured in Novy-Nicolle-Mac Neal (NNN) and Roswell Park Memorial Institute (RPMI) ۱۶۴۰ media. The cell proliferation of enzyme-linked immunosorbent assay, BrdU (Chemiluminescent) was performed as described by Roche Diagnostics. The mean of the viability PMs of Leishmania (L) major strain [MRHO/IR/۷۵/ER] in culture according to Staphylococcus aureus and Streptococcus beta-haemolytic supernatant, Glucantime concentrations and in the control group (Glucantime) was obtained. **Results:** It was shown that there was a statistical significant difference among Staphylococcus aureus and Streptococcus beta-haemolytic supernatant inhibits growth of Leishmania (L) major strain [MRHO/IR/۷۵/ER] PMs with the control group ($p < 0.05$). **Conclusions:** These exciting results suggest that Staphylococcus aureus and Streptococcus beta-haemolytic Supernatants have significant therapeutic potential as novel anti-leishmanial.

کلمات کلیدی:

Beta-haemolytic Streptococcus, Leishmania major, Staphylococcus aureus, Supernatant, Staphylococcus aureus, Beta-haemolytic Streptococcus, Leishmania major Promastigotes, supernatant

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