International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.10 No.7, pp 1028-1037, 2017

Effect of Silver Nanoparticles Synthesis from Sphingomonas paucimobilis in Leishmania donovaniin vivo and in vitro

***Sabaa Taher Mohammed**

Department of Biology, College of Science, AL-Mustansiriya University, Baghdad, Iraq

Abstract : In this study, synthesis of silver nanoparticles (AgNPs) was carried out by using *Sphingomonas paucimobilis* then theefficiency on *Leishmania donovani* was studied on its *in vivo* and in vitro. No cases of death have been recorded in the mice which indicate that there was no-toxic effect of silver nanoparticles, also the results showed that nanoparticles have a significant impact in reducing the percentage of a vital promasitgote in concentration (0.88 mg /ml) which led the vital to drop to 0% after (5 min) only while in concentrations (0.22 and 0.44mg /ml) gradually effected and reached zero after (15 and 30 min)respectively, the pentostam drug reached to zero after(30 min) compared with the control group where the number of living cells reached to 90%after 60 minutes , With a high significant difference ($p< 0.05$) between different concentrations, also nanoparticles and pentostam lead to significantly decrease in the numbers of parasites of spleen tissue compared with control. The histopathological study liver tissues appeared that naonparticles causes hydropic degeneration, infiltration of lymphocyte in liver tissue. So the results showed that the silver naonparticles extract from *Sphingomonas paucimobilis* has a good antiparasitic activity against visceral leishmaniasis.

Keywords : *Sphingomonas paucimobilis*, pentostam, naonparticles, *leishmania donovani*.

Sabaa Taher Mohammed /International Journal of ChemTech Research**,** 2017,10(7): 1028-1037.

****