

Detection of *Leishmania spp.* by Nested-PCR and virulence factors GIPLs, GP63 in *L. major* by conventional-PCR .

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Abstract

The present study aimed to molecular detection of *Leishmania spp.* by Nested- PCR assay and virulence factors glycoinositolphospholipids (GIPLs) and the major surface glycoprotein (GP63) for *Leishmania major* by using polymerase chain reaction assay. 50 samples were collected from patients infected with *Cutaneous leishmaniasis* reviewers AL-Diwaniyah Teaching hospital in AL-Qadisiyah province at the period from the beginning of November 2017 to the end of February 2018.

The results showed that the highest rate of infection was recorded among the age groups 1-10 years was (26 cases) percentage (52%) and about (15 cases) percentage (30%) of the age groups 10-20 years and the lowest of the age groups 40-50 years (1 case) percentage (2%). Also the number of infected males reached 26 percentage (52%) and females 24 (48%).

The results showed that 35 positive samples were *L. major* (560bp) and percentage (70%), *L. tropica* were 7 samples (750bp) and percentage (14%) and 8 negative samples (16%) by using Nested-PCR assay, to investigate the virulence factors GIPLs (354bp) and GP63 (885bp) that were found in all positive samples for *L. major* in percentage (100%) by using polymerase chain reaction PCR.

Keyword: *Leishmania major*, PCR, nested PCR, GIPLs, GP63.