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Original Article

Pathogenicity Variations of Susceptibility and Resistance to *Leishmania major* MRHO/IR/75/ER Strain in BALB/c and C57BL/6 mice

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Abstract:

Background: To compare the pathogenicity differences in two susceptible Balb/c and resistant C57bl/6 mice infected with *Leishmania major* MRHO/IR/75/ER as a prevalent strain of zoonotic cutaneous leishmaniasis in Iran.

Methods: Mice were assigned into four groups as control and infected BALB/c and C57BL/6 mice. Experimental leishmaniasis was initiated by (s. c) injection of the 2×10^6 *L. major* promastigotes into the basal tail of infected groups. The development of lesions was determined weekly by measuring the two diameters. After 10 weeks, all mice were killed humanly, target tissues including lymph node, spleen and liver from each mouse were removed, weighted, and their impression smears were prepared.

Results: Proliferation of amastigotes inside macrophages, pathogenicity signs in two susceptible, resistant hosts was varied, and these variations were depended on mice strain.

Conclusion: Host immunity may modify clinical signs and could affect the proliferation of amastigotes inside macrophages, the size of lesions, the survival rates, the degree of hepatomegaly and splenomegaly and the percentage of amastigotes in lesion, liver, spleen, lymph node and brain smears.

Keywords:

Balb/c , C57bl/6 , Pathogenicity , Iran , *Leishmania major* , MRHO/IR/75/ER

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