

## Zoonotic Cutaneous Leishmaniasis: Determination of Reservoir Hosts in Jahrom Using Polymerase Chain Reaction Methods

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**Background & Objectives:** Zoonotic Cutaneous Leishmaniasis (ZCL) is endemic in many parts of Iran. Jahrom is one of the important infected areas in Fars province. Lacking new information about reservoir hosts of this disease in Jahrom was the reason for conducting this study.

**Methods:** Between May 2009 and July 2010, as part of a research, 50 wild rodents in four regions including Jahrom County and three villages in the area including Mousavieh, Ghotb-Abad and Fath-Abad were caught and checked, by the microscopical examination and molecular Methods of liver, spleen, ear, and footpad smears, for leishmanial infection.

**Results:** Overall 18 *Meriones persicus*, 18 *Tatera indica*, 9 *Mus musculus*, and 5 *Rattus rattus* were caught. Totally, 22.2% of *Me. Persicus*, 11.1% of *T. indica*, 11.1% of *M. muscuus* and 20% of *Rattus rattus* were found smear-positive for leishmanial amastigotes. Nested-PCR also confirmed above mentioned species positive for the kinetoplast DNA of *Leishmania major*, none was found positive for any other *Leishmania* species. Total infection in caught animals was 20%.

**Conclusion:** This study showed *Meriones persicus* as the main 'reservoir' host of *L. major* in the rural area of Jahrom; moreover, *T. indica*, *Mu. musculus* and *R. rattus* have the main role in the maintenance of the disease in the urban regions of Jahrom focus.

**Keywords:** Zoonotic Cutaneous Leishmaniasis; Jahrom; Reservoir Host; *Leishmania*