

Detection of Leishmania Mixed Infection from Phlebotomus papatasi in Central Iran

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Abstract : Zoonotic cutaneous leishmaniasis (ZCL) is an endemic disease in many rural areas of Iran. Sand flies were collected from rural areas of Esfahan province and were identified using valid identification keys. DNA was extracted from sand flies and Nested PCRs were done using specific primers. In this study, 44 out of 152 (28.9 %) sand flies were infected with *L. major* alone. Eight sand flies showed mixed infection: four sand flies (2.6 %) were infected with *L. major*, *L. turanica* and *L. gerbilli*, one sand fly (0.7 %) was infected with *L. major* and *L. turanica* and three sand flies (2 %) were infected with *L. turanica* and *L. gerbilli*. Our results demonstrate the natural infection of *P. papatasi* sand fly with three species of *L. major*, *L. turanica* and *L. gerbilli* which are circulating among *R. opimus* reservoir host and *P. papatasi* sand fly vector in central Iran.

Keywords : *Phlebotomus papatasi*, *Leishmania major*, *Leishmania turanica*, *Leishmania gerbilli*, mixed infection, Iran

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