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Original Article

Clinical Features of Cutaneous Leishmaniasis and Direct PCR-Based Identification of Parasite Species in A New Focus in Southeast of Iran

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Abstract:

Background: To clinically characterize the cutaneous leishmaniasis and identify the causative parasite species in Mirjaveh, an important geographical region across the border of Iran-Pakistan at Southeast of Iran.

Methods: A number of 116 patients during a year since March 2005 to April 2006, subjected to the study. Clinical information collected and scrapings were taken from cutaneous lesions and used for microscopic examination, NNN cultivation and kinetoplast DNA-PCR amplification.

Results: The cases comprised of 48 males and 68 females, 84 (72.4%) Iranians and 32 (27.6%) non-Iranians. They aged between 2 months to 68 years with the most affection of children, 0-10 years (55.2%). The patients presented a total of 248 active lesions with an average of 2.14. The ulcers distributed mostly on upper extremity (42.3%) then on face (32.7%), followed by lower extremity (20.6%) and other parts (4.4%). The majority of ulcers stated to be developed rapidly, <1 month (40.3%) or 1-2 months (45.2%). However, from 248 ulcers, only 19 (7.7%) found to be wet and the remaining were dry or moderately wet, 45 (18.1%) and 184 (74.2%), respectively. kDNA-PCR assay detected 51 out of 73 samples, all of which were identified as *L. major*, the causative agent of zoonotic cutaneous leishmaniasis.

Conclusion: *L. major* is the species responsible for cutaneous leishmaniasis in Mirjaveh, however the pattern of clinical findings, does not completely resemble the ZCL characteristics. These indicate that the manifestation of the lesions may not necessarily correspond to the *Leishmania* species and may be unreliable to conclude the speciation of parasite without laboratory identification.

Keywords:

Cutaneous leishmaniasis, *Leishmania major*, Iran

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