

Effect of rodents' management plan on controlling cutaneous leishmaniasis in endemic centers of Qom province in 2012

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Abstract

ABSTRACT Introduction: Cutaneous Leishmaniasis (CL) is considered as a public health condition in many tropical and sub-tropical areas like Iran. Qom Province is considered as a center for CL in Iran. This study aimed at determining the effect of rodents' management control in controlling the disease incidence in the endemic centers of Qom Province in 2012. Methods: The first part of the study is a descriptive and cross-sectional study deals with rodents found in the villages of the central part of Qom Province. The second part of the study deals with the rodents' management operation which was carried out as a quasiexperimental study through four phases in all mentioned villages including 12 villages with 11061 people. SPSS, Chi-Squared and Mann-Whitney tests were used for analyzing data. Results: Out of 46 hunted small mammals, 31 (67.4%) rodents were *Meriones libycus*, 8 (17.4%) rodents were *Allactaga elater*, 4 (8.7%) rodents were *Mus musculus*, 2 (4.35) rodents were *Nesokia indica*, and 1 (2.7%) rodent was *Hemiechinus auritus*. The disease incidence rate before intervention (2011) was 17.9 cases per 100,000 people which it was decreased to 11.2 cases per 100,000 people after intervention (2012). The decreased incidence of CL in the region controlled by rodents' management plan was significant ($P < 0.05$). Conclusion: The results showed that rodents' management plan can play a key role in controlling CL incidence rate. Thus, it is recommended that people, who live in the areas where the plan is implemented, are invited to participate in the relevant training courses. Key words: Cutaneous Lishmaniasis – Incideuce - Qom

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