The Prevalence of Cutaneous Leishmaniases in Patients Referred to Kermanshah Hygienic Centers

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Introduction

Leishmaniasis is one of the most important parasitic disease between humans and animals that can be caused by many species of Leishmania. So that World Health Organization (WHO) has ranked as one of the six important infectious diseases and I group uncontrol diseases of the word [1-4]. This parasitic disease is endemic in 88 countries; 22 countries in Europe and America, and 66 countries in Asia and Africa. It’s estimated 12 million people in world and 1.5-2 million new cases occur in each year. The prevalence of cutaneous leishmaniasis in Asia, Africa, Europe more than northern and southern America [5, 6].

It has 3 main clinical forms, visceral, mucocutaneous, and cutaneous. Ninety percent of cases occur in Afghanistan, Pakistan, Saudi Arabia, Syria, Algeria, Brazil, and Peru. However, the prevalence rate in Iran and Saudi Arabia is high [7-9]. Cutaneous leishmaniasis occur in 2 forms (urban and rural). Both of them reported in many parts of Iran (Lot Abad, Sarakhs, Esfarayen, Khozestan, Qom, Kashan, and Tabas) especially in Esfahan and Ilam [10, 11]. In previous studies performed in Kermanshah Sarpol Zahab and Qhasr-e-Shirin were endemic areas [12], with due attention to the neighbouring of Kermanshah to Ilam that is one of the endemic areas of the leishmaniasis, so determination of the disease is necessary.

Materials and Methods

This descriptive–analytic study was carried out during three-years period in Kermanshah province, between January 2008 until December 2010. The data collection form included information of patients (age, sex, residence area, anatomical distribution, number of lesion, transmission season, and the history of travel to endemic areas in the past year) that recorded in Kermanshah hygienic centers, Iran (2008-2010). The diagnosis of CL was made by clinical symptoms and confirmed by demonstration of amastogotes in Giemsa stained tissue smears and culture from tissue by parasitology lab of Kermanshah, Iran [1]. Statistical analysis was performed using the $\chi^2$ test and $p<0.05$ was considered as significant.

Results

In this study 351 cases diagnosed to Cutaneous leishmaniasis between January 2008 until December 2010. Of the 351 CL cases, 285 (81%) were males and 66 (19%) were females. The mean age was 32 ± 14 years ($p=0.000$). The prevalence rate ranged in males was 4.5 times more than females (Table 1).

The most prevalence rate of the cutaneous leishmaniasis was in Kermanshah, and then Qhasr-e-Shirin, Islamabad Gharb and Sarpol Zahab, respectively (Fig. 1). 52.36% of patients had a wound on his body (52.36%) and most of them were on hands (52%).

Conclusion: The disease is not endemic in Kermanshah.
Discussion

Lots of studies related to the prevalence of CL were done in Kermanshah, and all of these studies reported an increasing process for this disease. So that Hamzavi reported an increasing process for the prevalence of the disease in Kermanshah from 2001 until 2006 [12]. But based on the results of this study, the prevalence of the disease was 351 cases. The analysis of these cases shows a descending process for the disease, and among the probable agents regarding this issue we can refer to controlling programs has been done very greatly by hygienic centers, Iran and Kermanshah University of Medical Sciences, Kermanshah, Iran.

According to the obtained results, 52.36% of the patients had one lesion that is similar to other studies [5, 11, 12, 14, 15]. But it was seen more than one lesion in some people, and this issue could be related to the physiological features of the sandflies that make numerous biting for each step of bloody-making and in each biting some parasite enter the body of the host and numerous lesions would be made or it could be due to the high abundant of the infected sandflies in the affected place of the disease [1, 7]. With due attention to the obtained results in this study and its contrast with the previous studies in the province [12], one can say that the performance of the controlling programs has been done very greatly by relevant agents, and this disease is not endemic in Kermanshah. In spite of this, it has been suggested to have epidemiologic studies once in few years In this regard to fight against the disease.

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Authors’ Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.
Conflict of Interest
The authors declare no conflict of interest.

References