

The Frequency Rate of Scabies and its Associated Demographic Factors in Kazerun, Fars Province, Iran

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| Article information | Abstract |
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| <p>Article history: Received: 12 Jan 2011 Accepted: 14 July 2011 Available online: 23 Sep 2011</p> | <p>Background: Scabies is one of the most common causes of itching dermatosis in the world. This disease is caused by <i>Sarcoptes scabiei</i>. The purpose of this study was to determine the prevalence of scabies and demographic factors affecting it, such as age, gender, residence, education and occupation in patients of health centers in the county during 1998-2006.</p> <p>Materials and Methods: This study was conducted as a descriptive cross-sectional study. The necessary information included positive cases of disease and effective demographic factors such as age, gender, occupation, education and residence using the contents recorded in health centers of the county.</p> <p>Results: Fifty one out of total 203 suspected cases were positive. The most positive cases were observed in males in age group of 16-25, soldiers, low educated people (guidance school) and in urban areas.</p> <p>Conclusion: This study indicates the relationship between the prevalence of scabies in soldiers in the region according to the population density in the garrisons. It also revealed that the disease is significantly related to educational level, gender and occupation.</p> <p>Copyright © 2012 Zahedan University of Medical Sciences. All rights reserved.</p> |
| <p>Keywords: Scabies <i>Sarcoptes scabiei</i> Iran</p> | |
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Introduction

Scabies or mange is the most common skin disease in the world, with which annually more than 300 million people are infected across the world which can be seen among all social classes. The disease is common in the world, especially in hot and humid regions. Lack of personal hygiene, economic poverty and living in crowded places such as barracks, boarding houses, dormitories, schools and daycares have a critical role in the spread of disease [1, 3]. The cause of this disease is a mite belonging to the family of Sarcopidae and *Sarcoptes scabiei* species. Residence of parasite is inside the skin of the human body. Mite species infects parts of the body with delicate, wrinkled and damp skin such as back, palms, and spaces between the fingers, wrist, elbow, armpit, groin and nipples [4, 5].

The disease symptoms include red prominent skin lesions, rashes and subcutaneous tunnels. The main symptoms is night itching which is aggravated in bed and when bathing due to the parasite irritation and causes ulcers and sometimes swollen lymph glands, fever and secondary bacterial infections [6, 7]. Scabies lesions results from tunneling parasites under the skin and releasing toxic and antigenic components by the mite in these channels. It seems that mites can affect and delay the immune and inflammatory reactions of host body [8-10]. Since delay in diagnosis may lead to the spread of disease to the people around, early and immediate diagnosis and treatment of the diseases is necessary. In

addition, along with treatment, preventive measures to prevent re-infection, especially in patients at home, are also essential. Parasites are transmitted by direct contact with skin and less through clothing, bed and contaminated sheets and sexual relationship [11].

Materials and Methods

This research was conducted as a descriptive cross sectional study. All those referred to the health centers during 1998-2006 with symptoms such as pimples all over the body, holes in the common areas, nodular lesions in areas such as buttocks and groin and night itching, were included in this study.

Sample determination was not considered before the research and the patient information, including occupation, education, residence, age and gender, is obtained based on the contents registered in these centers. It should be noted that sampling has been performed from suspected cases and the sample has been detected by laboratory expert.

Results

Fifty One out of total 203 suspected cases were positive. Prevalence of disease in urban areas was more than rural areas. Occupationally, patients were belonging to all jobs, but most cases of the disease were observed in soldiers (Table 1). In terms of gender, prevalence of the disease

was more in men than women and in terms of age distribution; the main part was in the age group of 16-25. In terms of education, positive cases were found at all levels, but most cases were observed at guidance school (Table 2).

Table 1. Prevalence of scabies by occupation

| Occupation | Frequency (%) |
|----------------|---------------|
| Soldier | 38(74.5) |
| Employee | 1(1.96) |
| Housewife | 1(1.96) |
| Labor | 1(1.96) |
| Free job | 3(5.9) |
| School student | 1(1.96) |
| Student | 1(1.96) |
| Child | 5(9.8) |

Table 2. Prevalence of scabies by education level

| Education level | Number (%) |
|-----------------|------------|
| Illiterate | 5(9.8) |
| Elementary | 6(11.8) |
| Junior | 23(45.1) |
| High school | 4(7.8) |
| Diploma | 11(21.6) |
| University | 2(3.9) |

Discussion

In this study, 51 out of total 203 suspected cases were positive. Most cases of disease are seen in soldiers, which can be due to the high population density in the barracks, the lack of personal hygiene and common use of the equipment. Also, there was a relationship between the disease and educational level, gender and occupation. Hot and humid weather conditions in the region of Kazerun predispose the situation for affliction with scabies. Studies have been conducted on the prevalence of scabies in Iran. Scabies outbreak in Guilan province appears to be higher than other provinces, which is probably due to a relatively

higher density of the population and the regional humid climate.

To control the disease, it is necessary to pay more attention to the health condition of people living in the barracks. Initial examinations on soldiers' arrival at the barracks and reexamination of people two weeks after the arrival, can be effective in preventing the disease. Necessary trainings should be provided to the affected person and those around the patient. If possible, blankets should be exposed to the sun for 1-2 hours. In this study, prevalence of disease was also high in children of 1-6 years old. To deal with this issue, families should be trained to increase awareness and observe personal hygiene. Given that the study was only conducted retrospectively in Kazerun based on the recorded demographic data, there are limitations in this study; including recording incomplete information about some people who were inevitably excluded. If health care personnel are trained and more complete forms are provided, a more accurate statistics can be obtained. If a similar study is actively conducted by researchers in other cities and patients are found in centers such as schools and daycares, comprehensive information can be achieved on disease condition across the country.

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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.

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