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RATE OF SCABIES DISEASE AMONG HEALTH DIRECTORATE IN IRAQ, A RETROSPECTIVE STUDY

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ABSTRACT

Background: Scabies is one of the most dangerous types of skin diseases in the world, which causes a lot of unpleasant and intolerable symptoms, such as painful itching and rash. **Aims**: to identify the rate of disease among different health directorate in Iraq. **Methods:** A retrospective cross sectional study was conducted among scabies cases. Clinical examination was carried out in a private room in each hospital by a single trained female dermatologist for each case separately to detect the presence of scabies. Statistical analysis was done by using the software package for social studies (SPSS) version 19. The categorical variables were presented as number and percentage. **Results:** we found that the 51.3% of cases were male and 48.7% were female. The highest frequency of cases still in the age less than 14 years , followed by 34.5% in the age groups 15-44 years and 11.7% in the age more than 65 years old. The higher rate of scabies infection was 28.31 in Kirkuk province, followed by 14.31, 7.89, 6.61, and 6.33, respectively. **Conclusion:** We conclude that the scabies infections are more common among males than females. The rate of infection among adults and children is higher than elderly. We need to improve education, recognition, management and affordable access to treatment.

KEYWORD: Scabies, Rate, Gender, Retrospective, Age.

INTRODUCTION

Scabies is one of the most dangerous types of skin diseases in the world, which causes a lot of unpleasant and intolerable symptoms, such as painful itching and rash.[1] Scabies, known as the "seven-year itch", is an infectious skin disease caused by mite scabies.[1] The most common symptoms are severe itching and a rash that looks like pimples.[2] Sometimes small burrows can be seen on the skin.[3] If a person has a second infection, symptoms appear within a day.[4] These symptoms can appear in most parts of the body or only in certain areas, such as the wrists and between the fingers or along the waist.[5] The head may be affected, but usually affects young children rather than adults.[6] In Iraq, the rate of infection was 4.5% per 10000 of the population during 2018. Scabies affects people without distinction between ages, races or even social situations.[7] It is transmitted from infected people often through direct skin contact, most frequently in crowded places where the disease is easily transmitted, and may sometimes be transmitted by sharing clothes or bedspreads and others with infected people.[8,9] Scabies is diagnosed by examining the symptoms and effects on the surface of the skin[10] The scabies may be caused by a person shaking hands with another who has symptoms of the disease, or it may be by taking a biopsy from the skin of the infected person after the doctor has rubbed it.[11] This study aimed to identify the rate of disease among different health directorate in Iraq.

METHODOLOGY

A retrospective cross sectional study was conducted among scabies cases during one year started from the 1st of January to the end of the December 2018. This administrative area includes 18 major provinces. The study was approved by the local ethics committee of The Ministry of Health. The sample size was determined using the Epi-Info program. The calculated sample size was 17430 at 80% power and 95% level of confidence, with expected prevalence of scabies of 5% and a margin of error of 2%.

Clinical examination was carried out in a private room in each hospital by a single trained female dermatologist for each case separately to detect the presence of scabies. The diagnosis of scabies was made on clinical basis by the presence of persistent pruritic rash with itching increasing at night, and skin lesions in the form of characteristic burrows, vesicles, and itchy papules or nodules in characteristic sites of the disease (on the wrist, sides and web spaces of the fingers, the axillae, periareolar, periumbilical, abdomen, and buttock areas), with liability to secondary infection with impetigo, folliculitis, or eczema. Statistical analysis was done by using the software package for social studies (SPSS)

version 19. The categorical variables were presented as number and percentage.

RESULTS

Out of seventeen thousand and four hundred ninety three, 51.3% of cases were male and 48.7% were female. The highest frequency of cases still in the age less than 14 years, followed by 34.5% in the age groups 15-44 years and 11.7% in the age more than 65 years old. The higher rate of scabies infection was 28.31 in Kirkuk province, followed by 14.31, 7.89, 6.61, and 6.33, respectively.

Table 1: Distribution of Studied Sample According To Age Groups.

Age Groups	Frequency	Percent
Less than 14 years	6065	34.8
15- 44 years	6015	34.5
45-64 years	3317	19.0
More than 65 years	2033	11.7
Total	17430	100

Table 2: Distribution of Studied Sample According To Gender.

Gender	Frequency	Percent
Male	8937	51.3
Female	8493	48.7
Total	17430	100

Table 3: Distribution of Studied Sample According To Health Directorate and Rate Per 10,000 Of The Population.

Health Directorate	Rate
Baghdad	6.61
Basra	14.31
Nineveh	3.34
Maysan	1.37
Al-Dewaniya	0.76
Diala	5.39
Al-Anbar	0.74
Babylon	2.16
Kerbela	2.35
Kirkuk	28.31
Wasit	0
Thi-Qar	0.16
Almuthanna	2.27
Salah-Aldeen	6.33
Alnajaf	7.89
Erbil	0
Duhouk	0
AlSulaimaniya	3.15

DISCUSSION

Epidemiological studies indicated that the prevalence of scabies is not affected by sex, race, or age and that the primary contributing factors in contracting scabies seem to be poverty and overcrowded living conditions.[12]

In our study, we found the higher percentages of cases 51.3% were male and 48.7% were female. Compared with other studies done it in Ethiopia[13] and Bangladesh[14], the female cases were more than male cases. This refers to different of lifestyle between countries. Also, the age had a positive effect to increase the percentage of the disease, especially among children and adults; this is due to the low level of personal hygiene among them. In this study, we found the highest frequency of cases still in the age less than 14 years old. Compare with studies done it in Egypt[15], Ethiopia[16] and in Nigeria[17], the infection was higher among children and youth people. This may be most of them they are living in crowded place with more than 6 or 7 person in the same home or they are using the same bed for 2 or 3 person. Also, they are living in bad socioeconomic level. In other hand, we found the rate of scabies infection was higher in north and south of Iraq. Another studies done it in Pakistan[18], and Saudi[19,20] The authors reported the infection was higher in south region; this refers to the cause of infection and means of spread of the disease are based in the south.

CONCLUSION

We conclude that the scabies infections are more common among males than females. The rate of infection among adults and children is higher than elderly. We need to improve education, recognition, management and affordable access to treatment.

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