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SOCIO-DEMOGRAPHIC AND CLINICAL PROFILE OF PATIENTS WITH SCABIES IN MOSUL CITY

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ABSTRACT

Background: Scabies is a neglected parasitic skin disease that forms a major health problem worldwide. Scabies is embedded in a complex web of causation characterized by poor living conditions, overcrowding, poor personal hygiene and low education level. Aim of the study: To assess the socio-demographic and clinical profile of scabies patients in Mosul City. Patients & Methods: A cross sectional study design has been adopted among 300 scabies patients attending Dermatology Outpatient Clinic at Ibn-Sina Teaching Hospital and at Mosul General Hospital using a special questionnaire form filled by information taken by the investigator from the participants through a direct interview. Data collection started on the 2nd of January 2024 and ended on the 30th of June 2024. **Results:** The total number of patients were 300 patients, Males were more than females 53.3% versus 46.7% with the age group 15-44 years being the highest one including 41.4% of respondents and 52% lived in urban areas. 41.4% of the respondents were married. More than third of patients 39.7% had primary education while 44.3% of study sample were illiterate including the below 5 years age group patients and 72% belonged to the fifth social class (unskilled). Among the respondents, 49% lived in highly crowded houses, 25.3% lived in good housing conditions and 51% had poor personal hygiene. Family history for scabies was positive in 78% of patients and more than half of the patients 54.3% with unknown source of infection at time of study and examination of other family members. History of reinfection was present in 28.3% of total sample size, other dermatological problems in addition to scabies at time of study and examination was present about 9.3% of total patients and mainly was atopic and contact dermatitis. The most common site for clinical presentation of scabies (i.e. rash and itching) was the abdomen 49.3% followed by the hands 47%. More than half of study sample scabies skin lesion types were excoriated papules 52.3% while the second most common scabies skin lesion type was erythematous papules demonstrate 39%. Conclusion: The age group 15-44 years being the highest affected age group more than third of total study sample. More than third of patients had primary education while nearly less than half of study sample were illiterate including the below 5 years age group patients. Family history for scabies was positive in most of patients. The most common site for clinical presentation of scabies (i.e. rash and itching) was the abdomen approximately half of total study sample followed by the hands. More than half of study sample scabies skin lesion types were excoriated papules.

KEYWORDS: Scabies, Socio-Demographic, Mosul.

INTRODUCTION

Scabies is Astigmata, a suborder of the family Sarcopidae, is responsible for this extremely itchy skin illness that affects both people and animals. They consist of Notoedres, Sarcoptes scabiei, and the scabies mite.^[1] According to epidemiological estimates, 200–300 million persons globally are thought to have scabies, with significant regional differences.^[2] Scabies is more prevalent geographically in developing nations, tropical

regions, and places without access to water.^[3] Scabies is mostly spread by direct skin-to-skin contact, which is why it has been classified as a sexually transmitted illness. The stratum corneum, the outermost layer of the epidermis, is the furthest the mite may go. Even in the absence of symptoms, an individual harboring mites can transmit the scabies.^[4] The primary symptom of typical scabies is excruciating itching and pruritus, which usually gets worse at night. The delayed-type hypersensitivity reaction is what causes the pruritus caused by the mite, eggs, and excrement.^[5] Clinical diagnosis of scabies is frequently possible in patients with a pruritic rash and the recognizable linear burrows. By using light microscopy to identify mites, larvae, ova, or scybala (feces) in skin scrapings, the diagnosis is verified. In rare instances, biopsy specimens taken to rule out other dermatoses reveal the presence of mites. In the absence of real mites, characteristic histology may also point to scabies.^[6] In order to treat scabies, a scabicidal agent (such as permethrin, lindane, or ivermectin) must be used. If a secondary infection has arisen, an appropriate antimicrobial agent must also be administered.^[7] The local application of agents should cover every area of the skin beneath the neck. The scalp. face, and neck should all be included in the treatment agent's application region if the patient is under two years old. Even if they show no symptoms, everyone who comes into close touch with an infected patient needs to be treated.^[8] Scabbicide needs to be reapplied if the patient washes their hands while receiving treatment. The patient's clothing needs to be cleaned or laundered (ideally at 60 degrees Celsius) to prevent reinfection.^[8] The patient should be advised that the pruritus may last for up to four weeks, and occasionally months, following the treatment. Use oral antihistamines and corticosteroids to reduce the pruritus.^[9]

Aim and Specific objectives

The study aim is to assess the environmental and clinical characteristics of patients with scabies attending dermatological clinic of Ibn-Sina Teaching Hospital and Mosul General Hospital in Mosul. The above aim will be carried out by the following objectives:

- 1. To describe the main socio-demographic profile of the study sample.
- 2. To identify the main environmental factors associated with scabies and these include: housing conditions, crowding index, personal hygiene.
- 3. To identify other clinical factors associated with scabies and these include: family history, source of infection, other dermatological problems and previous infection with scabies.
- 4. To describe the clinical presentation among the study sample.

PATIENTS AND METHODS

A cross sectional study was conducted with 300 patients with scabies were seen at the dermatology outpatient clinic in Ibs-Sina Teaching Hospital and Mosul General Hospital., which represents the available cases of study sample. Data collection was within 6 months started on the 2nd of January 2024 and ended on the 30th of June 2024. Data collection was done through a detailed questionnaire form prepared and filled by the researcher. Formal consent was taken from every participant or care giver before data collection. Scabies was diagnosed clinically by a dermatologist in the dermatology outpatient clinic. In the present study, the items of the questionnaire were chosen from multiple researches that investigate about scabies. The data collected during the study were summarized in sheets of Microsoft Excel 2007. The statistical analysis performed by using IBM-SPSS 26 to determine the mean, numbers and percentages. Percentages were used to summarize numerical data. Categorical data were collected. Frequencies and proportions were used to summarize the data.

RESULTS

Figure (1) illustrate the percentage of study sample according to their sex; and show that males were more than females (53.30% versus 46.70%).



Figure 1: Sex distribution of study participants.

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The mean age of participants was approximately 27.46 years.

 Table 1: Illustrate the distribution of study sample according to their age group and show that the age group 15-44 years being the highest one including 41.4% of respondents.

 Table 1: Distribution of study sample according to their age group.

	Total		
Age groups (years)	No.	%	
< 5	54	18	
5-14	60	20	
15-44	124	41.4	
45-64	30	10	
>65	32	10.6	
Total	300	100	

Table (2) shows that nearly half of the study sample 49% lived in highly crowded houses with crowding index being more than 2 persons /bedroom. More than half of the respondents 58.7% were living in fair housing conditions. It is also seen that, 49% of patients had good personal hygiene. Table 2: Socio-Environmental characteristics of study sample.^[10,11,12]

	No.	%
Crowding index (persons/bedroom)		
Low (<2)	46	15.3
Moderate (2)	107	35.7
High (>2)	147	49
Housing condition		
Good	76	25.3
Fair	176	58.7
Poor	48	16
Personal hygiene		
Good	147	49
Poor	153	51

Table (3) show that 78% of study sample having positive family history for scabies. Only 9.3% of the study sample had other dermatological problems. History of reinfection was negative in (71.7%) of cases. Table 3: Distribution of study sample according to clinical factors.

	No.	%
Family history of scabies		
Present	234	78
Absent	66	22
Source of infection		
Known	137	45.7
Unknown	163	54.3
History of reinfection		
Present	85	28.3
Absent	215	71.7
Other dermatological problem with scabies		
Present	28	9.3
Absent	272	90.7

Table (4) illustrates that 54% of the respondents were single.Table 4: Distribution of study sample according to their marital status.

	Total	
Marital status	No.	%
Married	124	41.4
Single	162	54
Widowed	11	3.6
Divorced	3	1
Total	300	100

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Table (5) show that 52% of the study sample lived in urban areas.	
Table 5: Distribution of study sample according to Residence.	

	Total		
Residence	No.	%	
Urban	156	52	
Rural	144	48	
Total	300	100	

Table (6) portrays that 44.3% of patients were illiterate, 39.7% having their primary education, 13% with secondary education and only 3% with high education.

 Table 6: Distribution of study sample according to their Educational level.

	Total	
Education level	No.	%
Illiterate	133	44.3
Primary	119	39.7
Secondary	39	13
High education	9	3
Total	300	100

Table (7) reveals that 14% of study sample were from the third social class, and only 1.3% were first class. Also Only 2.7% of the scabies patients were from the second class, but more than two thirds of patients belonged to the fifth social classes (72%). Fourth social class contributes 10% of study sample. Table 7: Distribution of study sample according to their Social class.^[13,14]

	Total	
Social Class	No.	%
First (Professional)	4	1.3
Second (Semiprofessional)	8	2.7
Third (Skilled)	42	14
Fourth (Semiskilled)	30	10
Fifth (Unskilled)	216	72
Total	300	100

Figure (2) demonstrates that the most common site for clinical presentation of scabies (i.e. rash and itching) was the abdomen (49.3%) followed by the hands (47%).



Figure 2: Distribution of the sample according to the site of involvement.

Figure (3) demonstrates that more than half of study sample scabies skin lesion types were excoriated papules (52.3%) while the second most common scabies skin lesion type was erythematous papules demonstrate (39%).

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Figure 3: Distribution of the study sample according to the types of scabies skin lesions.

CONCLUSION

The age group 15-44 years being the highest affected age group more than third of total study sample. More than third of patients had primary education while nearly less than half of study sample were illiterate including the below 5 years age group patients. Family history for scabies was positive in most of patients. The most common site for clinical presentation of scabies (i.e. rash and itching) was the abdomen approximately half of total study sample followed by the hands. More than half of study sample scabies skin lesion types were excoriated papules.

Recommendations

A- At individual level

- 1. Patients with scabies should follow the instructions provided by their dermatologists to treat the infection and prevent complications.
- 2. Decrease direct contact with their family members and friends to minimize the spread of the disease in the community, sick leaves from their jobs should be obtained.
- 3. A complete health behavior change should be considered to improve personal hygiene and living conditions within the household.
- 4. All the contacts of scabies patients should be examined and treated accordingly.
- B- At physician level
- 1. Detailed instructions should be given to patients regarding treatment dose, duration, method of application of medications in addition to the general instructions regarding bathing and washing clothes with hot water.
- 2. Continuous follow up of patients to ensure symptom resolution and response to treatment.

C- At health authority level

Further studies should be done to assess scabies at

community level as it gives better idea about the prevalence of the disease than hospital level.

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