

Skin Diseases in A Sample of Under-Five Years Children and their Sociodemographic Characteristics at Al-Imamein Al-Kadhimein Medical City/Baghdad

Nibras A. Hussain *FIBMS (FM)*, Methaq H. Alogaili *PhD*, Luma K. Mohammed *FIBMS (FM)*

Dept. of Family & Community Medicine, College of Medicine, Al-Nahrain University, Baghdad-Iraq

Abstract

Background	Skin diseases are a big health problem affecting a high percent of the population and causing distress and disability. Children's skin is often regarded as smoother and softer than that of adults; as a result, it may be more susceptible to irritation and inflammation.
Objective	To determine frequency and types of skin diseases in children less than 5 and to find some sociodemographic characteristics of those children.
Methods	A cross-sectional study conducted in Al-Imamein Al-Kadhimein Medical City; the data were collected during March and April 2019. A convenient sample (262 under 5 years of age children) were selected from dermatological outpatient's clinic by interviewing the parents of those children.
Results	Out of this sample, 144 (55%) were males; atopic dermatitis in 79 (30.2%) constituted the highest percentage followed by diaper rash in 46 (17.5%) and warts were found in 28 (10.7%). Regarding their sociodemographic characteristics, 199 (76%) and 209 (80%) of the children starting solid food and bottle feeding less than 4 months age, respectively and 224 (85.5%) of the children were up-to-date vaccination.
Conclusion	Atopic dermatitis was the most frequent skin diseases in children under 5 years. Most of them were males, starting solid food and bottle feeding before 4 months. More than two third were taking their vaccination up to date.
Keywords	Skin diseases, under 5 years, Baghdad, atopic dermatitis and sociodemographic
Citation	Hussain NA, Alogaili MH, Mohammed LK. Skin diseases in a sample of under-five years children and their sociodemographic characteristics at Al-Imamein Al-Kadhimein Medical City/Baghdad. Iraqi JMS. 2025; 23(1): 39-45. doi: 10.22578/IJMS.23.1.5

List of abbreviations: None

Introduction

Skin diseases are a big health problem affecting a high percent of the population and causing distress and disability ⁽¹⁾. Children's skin is often regarded as smoother and softer than that of adults; as a result, it may be more susceptible to irritation and inflammation ⁽²⁾. Dermatological conditions are

frequently encountered in pediatric practice. Some of the most common pediatric skin conditions include atopic and contact dermatitis, birthmarks, and acne. Especially in children, skin conditions are often accompanied by feelings of poor self-esteem and embarrassment, leading to a significant impact on quality of life ⁽³⁾.

The pattern of skin disease shows seasonal variations and varies from one place to another and even within different geographical regions

⁽⁴⁾. In developing countries, the skin diseases are very common, especially infections and infestations among the younger age group. They can affect more than 60% of the general population and usually are not well treated as mentioned by Ogunbiyi et al in Nigeria ⁽⁵⁾. The prevalence of skin diseases may be higher in rural areas than urban area ⁽⁶⁾.

Many causes contribute to skin diseases including infectious agents e.g.; bacterial, fungal, viral, protozoal, contact to irritant material and weak immune system and other factors like sharing bed, malnutrition, overcrowding, lack access to health care. Skin diseases become one of the fifteenth top most common medical diseases. Contact dermatitis is the most common skin disease, it caused by contact with irritant, allergen, or chemical substance that led to inflammation of the only superficial layer of skin ⁽⁷⁾.

In Iraq, the most common dermatological problem in infant was atopic dermatitis ⁽²⁾, while in primary school age it found that overall prevalence of skin diseases was 40.9% ⁽¹⁾.

A significant association between the prevalence of skin diseases with education level of parents was demonstrated. The high rate may reflect prevailing low socioeconomic conditions ⁽¹⁾. Dermatitis was the most common disease category (33%) in the community-based population, and skin infections (32%) in the hospital-based group. Community and hospital-based studies demonstrate that skin diseases represent a major public health problem which may confer significant personal and financial burdens on Iraq ⁽⁸⁾.

The objectives to determine the most frequent skin diseases in children less than 5 years old attending Al-Imamein Al-Kadhimein Medical

City and to find some sociodemographic characteristics of those children.

Methods

A cross-sectional study was conducted in Al- Al-Imamein Al-Kadhimein Medical City. Data collected during March and April 2019. A total of 262 under 5 years children were included. A convenient sample selected from dermatological outpatient's clinic by interviewing the parents of under 5 years of age children using a questionnaire especially prepared for this study, after took a verbal consent from the parents to participate in the study. Children whom came without their parents were excluded.

The questionnaire which constructed by researchers involved: sociodemographic information of the children and their parents, history of allergy, time of starting solid and bottle feeding, family history of the same skin disease, smoking in their house, animals contact, if the child in kindergarten, vaccination history. The diagnosis was confirmed by the specialist of dermatology at the outpatient's unit.

Statistical analysis

Statistical analysis was done by using Microsoft Excel 2010 and descriptive statistic was done. Ethical consideration had taken from the Scientific Committee in Family and Community Department at College of Medicine, Al-Nahrain University.

Results

The mean age of the sample was 27.5 ± 10.3 months with a range between (4-59 months). Out of this sample (262), there were 144 (55%) males (Figure 1).

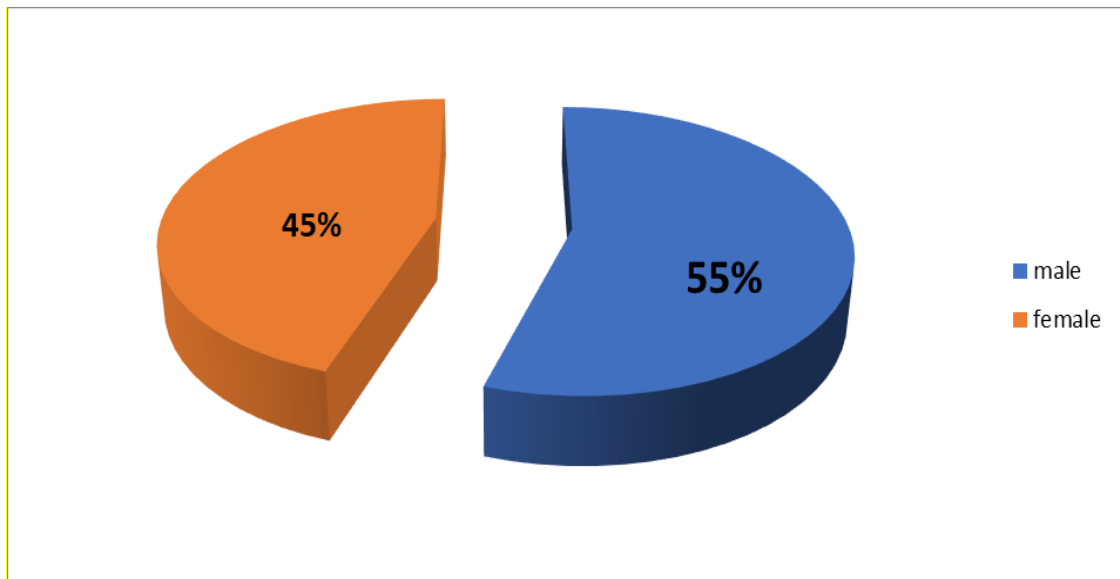


Figure 1. The distribution of the sample according to the sex of children

The most frequent skin diseases founded in this sample were atopic dermatitis (eczema) in 30.2% of the sample, 17.6% of them had diaper rash, 10.7% of children had warts, 9.5% of them with scabies, 7.6% of them had

molluscum contagiosum, 6.1% had impetigo, 5.7% with insect bites, 4.6% leishmaniasis, 1.5% measles and 6.5% others (drug eruptions, fungal infections, psoriasis) (Table 1).

Table 1. The distribution of the sample according the diagnosis of the skin diseases

Diagnosis	Number (262)	Percent (100 %)
Atopic dermatitis (Eczema)	79	30.2
Diaper rash	46	17.6
Warts	28	10.7
Scabies	25	9.5
Molluscum contagiosum	20	7.6
Impetigo	16	6.1
Insect bites	15	5.7
Leishmaniasis	12	4.6
Measles	4	1.5
Others (drug eruptions, fungal infections, psoriasis)	17	6.5

Regarding some sociodemographic characteristics of the children included in this study: 64.9% of the children lived in the center of Baghdad, 72.9% of them not attending kindergarten, 51.1% and 57.6% of their fathers and mother had a primary school education or

less respectively, 79% of the children had no history of any type of allergy, while 23.3% of them had family history of the same disease and 20.6% of them had the same disease in their same family members. 50.4% of the children had history of smoking in their house,

while 30.2% of them had history of contact with animals (Table 2).

Table 2. Distribution of the sample according some sociodemographic characteristics.

Variables		Numbers	Percent%
Residence	Center	170	64.9%
	Periphery	92	35.1%
kindergarten	Yes	71	27.1%
	No	191	72.9%
Father education	Primary or less	134	51.1%
	Secondary	82	31.3%
	Graduated	46	17.6%
Mother education	Primary or less	151	57.6%
	Secondary	89	34%
	Graduated	22	8.4%
History of allergy	Yes	55	21%
	No	207	79%
Presence of animals in the house	Yes	79	30.2%
	No	183	69.8%
Family history of same diseases	Yes	61	23.3%
	No	201	76.7%
History of smoking in the house	Yes	132	50.4%
	No	130	49.6%
Diseased other members in same family	Yes	54	20.6%
	No	208	79.4%

There were 209 (80%) of the children starting bottle feeding at 4 months and less (Figure 2)

and there were 199 (76%) of them starting solid food less than four months age (Figure 3).

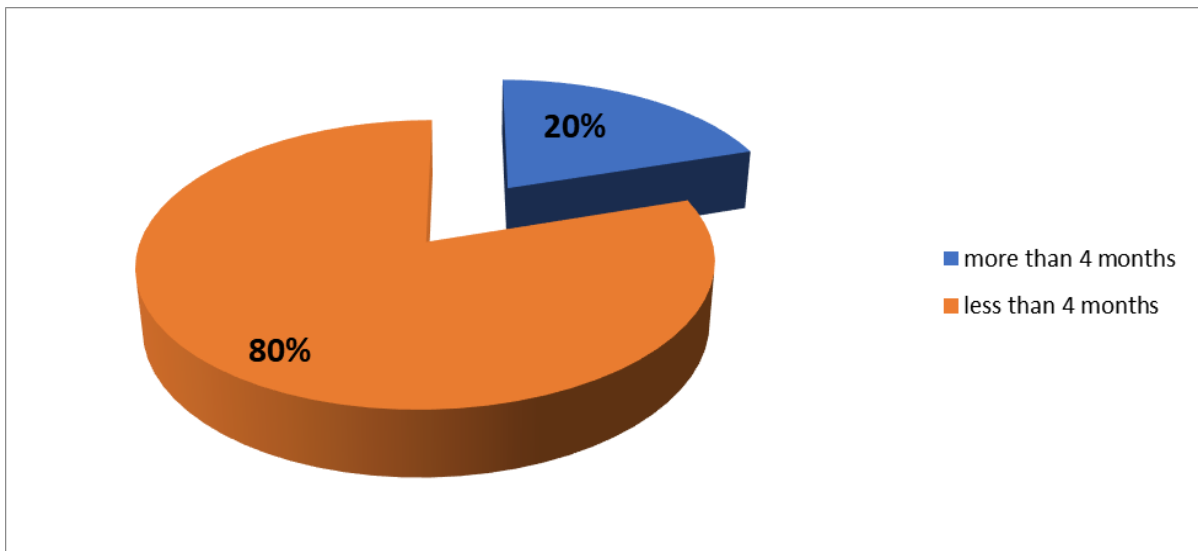


Figure 2. The distribution of the sample according to the age of starting bottle feeding

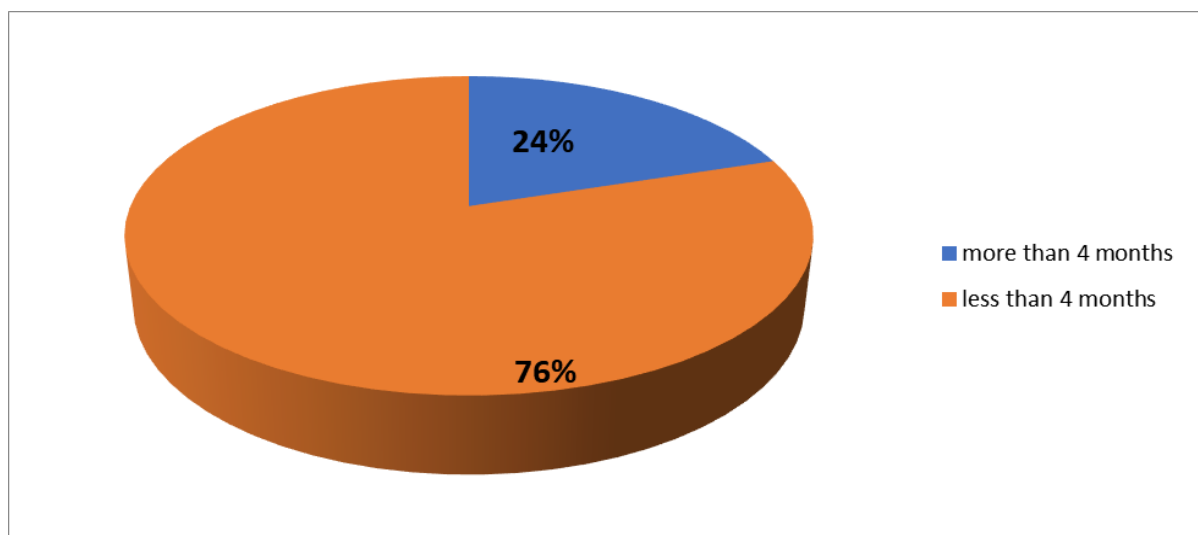


Figure 3. The distribution of the sample according to the age of starting solid food

Regarding the history of vaccination uptake, there were 224 (85.5%) of the children were up-to-date in their vaccination up taking (Figure 4).

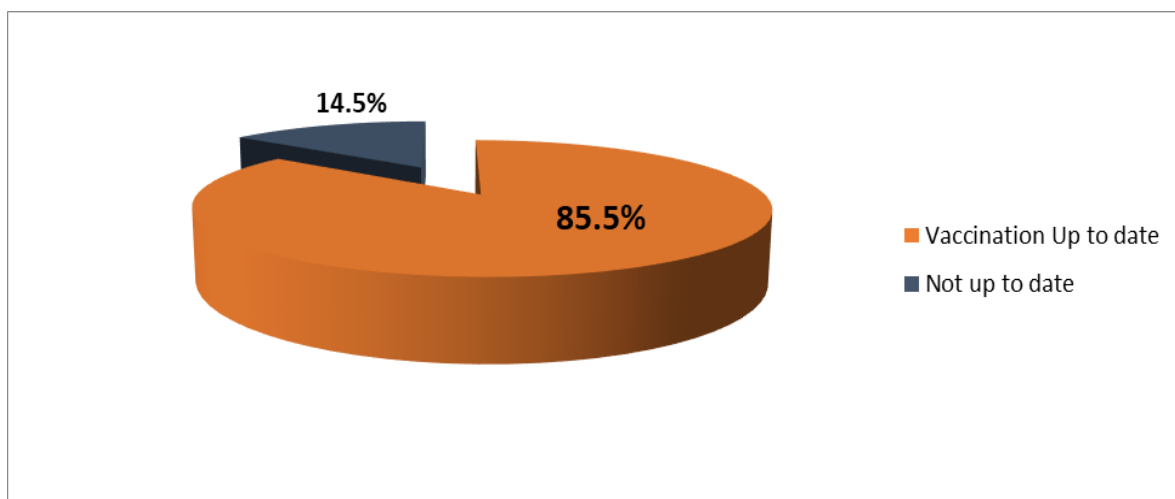


Figure 4. The distribution of the sample according the vaccination uptake

Discussion

The present study was designed to find the types of skin diseases and some associated factors in under 5 years children attending dermatological outpatient in a tertiary hospital in Baghdad. The most common disease recorded in this study was atopic dermatitis and diaper rash is the second common cause of presentation and these like what's found by Al-Hasani et al. in Baghdad, ⁽⁴⁾ and this may be most annoying symptoms which the children can't stand it and made the parent bring them to doctor.

Viral infection was the most common cause of infected skin lesion and this align with Algharbawi in Wasit ⁽⁹⁾, and this may be caused by exposure to the skin and mucous membrane of various viruses due to decreased immunity. While regarding the sociodemographic characteristics of children presented with skin problems were males, living in urban with a primary education or less of both parents and this like what's found by Algharbawi in Wasit ⁽⁹⁾; this may because the family take care males more than females and decrease education may lead to decrease hygiene and more crowded. Despite of absence of comparable group, but early introduction of solid food and bottle feeding was found in this study and this align with a study in Italy ⁽¹⁰⁾, who found increase allergic skin problems in those on bottle feeding in less than four months.

Finally, it was good rate of the vaccination intake up to date (even it wasn't related to the skin lesion, but it was taken as a part of children's history) as more than two third (85.5%) were up to date despite they suffered from skin problems, but they up to date with taking their vaccines and this may be most of the sample from center of Baghdad and they were taking health care by good primary care centers which give good.

In conclusions, atopic dermatitis was the most common skin diseases in under 5 years. Most of those children were males, starting solid food and bottle feeding before 4 months. More than two third were taking their vaccination up to date.

Acknowledgement

Special thanks to students of fourth stage at College of Medicine, Al-Nahrain University for helping in data collection. Also, thanks is extended for parents whom spent a time in answering study questions.

Author contribution

Dr. Hussain: data collection, statistical analysis, writing manuscript. Dr. Alogaili and Dr. Mohammed participated in final revision of the manuscript.

Conflict of interest

There were no conflicts of interest to declare.

Funding

Self-funding.

References

1. Khalifa KA, Al-Hadithi TS, Al-Lami FH, et al. Prevalence of skin disorders among primary-school children in Baghdad governorate, Iraq. *East Mediterr Health J*. 2010; 16(2): 209-13.
2. Kong F, Galzote C, Duan Y. Change in skin properties over the first 10 years of life: a cross-sectional study. *Arch Dermatol Res*. 2017; 309(8): 653-8. doi: 10.1007/s00403-017-1764-x.
3. Min M, Malhi JK, Chambers CJ, et al. Impact of pediatric dermatologic conditions on child and parent quality of life. *Cureus*. 2023; 15(7): e42068. doi: 10.7759/cureus.42068.
4. Al-Hasani F, Al-Hamam H, Farhood IG, et al. The prevalence of skin diseases among Iraqi Infants. *Sci J Med Res*. 2021; 5(19): 67-72.
5. Ogunbiyi AO, Daramola OO, Alese OO. Prevalence of skin diseases in Ibadan, Nigeria. *Int J Dermatol*. 2004; 43(1): 31-6. doi: 10.1111/j.1365-4632.2004.01967.x.
6. Mohammed K. Prevalence of skin diseases in rural Erbil: A community-based study. *Zanco J Med Sci*. 2012; 16(1): 45-51. doi: <https://doi.org/10.15218/zjms.2012.0008>.
7. Al-Ghuzi AAS, Ibrahim ZJ, Kawen AA. The epidemiology of dermatological diseases in Al-Nasiriya city 2018. *Thi-Qar Med J*. 2020; 20(2): 12-23.
8. Al Samarai AG. Prevalence of skin diseases in Iraq: A community-based study. *Int J Dermatol*. 2009; 48(7): 734-9. doi: 10.1111/j.1365-4632.2009.03812.x.
9. Algharbawi BAA, Al-Baraznchi SJM, Al-Mnehil JKM. Prevalence and pattern of skin disorder among primary school children in Wasit Governorate, Iraq, 2021. *Texas J Med Sci*. 2023; 17, 46-50. doi: <https://doi.org/10.62480/tjms.2023.vol17.pp46-50>.
10. Caffarelli C, Di Mauro D, Mastroianni C, et al. Solid Food Introduction and the Development of Food Allergies. *Nutrients*. 2018; 10(11): 1790. doi: 10.3390/nu10111790.

Correspondence to Dr. Nibras A. Hussain

E-mail: nibrasfamily77@gmail.com

nibrasfamily@nahrainuniv.edu.iq

Received Aug. 19th 2024

Accepted Dec. 24th 2024