EPIDEMIOLOGICAL PROFILE OF CUTANEOUS LEISHMANIASIS IN DUHOK GOVERNORATE DURING THE PERIOD FROM 2017-2022

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ABSTRACT

Background: Cutaneous leishmaniasis (CL), while endemic in central and southern Iraq, has historically been rare in the Kurdistan Region. However, following the 2014 displacement of populations into Duhok Governorate—an area previously free of CL—concerns about its emergence increased. This study aims to assess the prevalence, risk factors, and clinical characteristics of CL cases in Duhok between 2017 and 2022.

Methods: A retrospective study was conducted using records from the Directorate of Preventive Health in Duhok. Data analyzed included patient demographics, lesion characteristics (type, number, and location), diagnostic methods, treatment regimens, and clinical outcomes, including cure rate, recurrence, and duration of illness.

Results: We reported a total of 261 CL cases. Most affected were males (57.5%) and individuals aged 1–19 years (39.1%). Children were the most affected occupational group (26.0%). Duhok reported nearly all cases (93.9%), while Nineveh reported 6.1%. The highest case number occurred in 2021 (61.3%), while none were reported in 2020. Multiple lesions were present in 52.1% of cases, often on the upper limbs (46.4%). Diagnosis was mainly clinical (98.5%). About 46.4% had animal exposure. Younger individuals were more likely to have facial and multiple lesions, while older individuals had more single lesions. Housewives, soldiers, and farmers had higher proportions of multiple lesions.

Conclusion: Although Duhok is not traditionally considered endemic for CL, the emergence of cases suggests that it requires continued surveillance, timely diagnosis, and targeted public education to prevent further spread. Greater epidemiological attention is warranted to control transmission dynamics, particularly among vulnerable groups.

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Keywords: Cutaneous leishmaniasis, epidemiology, Duhok, risk factors, lesions.

Leishmaniasis is an infectious disease caused by protozoan Leishmania parasites and transmitted by the bite of infected female phlebotomine sand flies. It causes important public health problems in both tropical and subtropical areas. There are three main forms of leishmaniasis: visceral, also known as kala-azar, which is the most serious form of the disease; cutaneous, which is the most common; and mucocutaneous.[1] CL normally creates skin lesions on different locations of the human body that are always exposed to sandfly biting, such as the face, neck, arms, legs, and perhaps abdomen. The number of lesions might reach two hundred on one body. Healing of ulcers often leaves permanent scars, which, when present on the face, cause serious social problems.[2] Generally, risk factors, including environmental conditions, human behavior, socioeconomic status, immunogenic profile, and genetic factors, pose a major risk to human populations.[3] The presence of dogs and rodents is regarded as the most important risk factor

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for cutaneous leishmaniasis, reflecting their role in the transmission cycle of leishmaniasis. The presence of animals, mainly cows and sheep, can increase the prevalence of leishmaniasis cases via increasing the density of sand flies around houses, as their dung provides a rich environment for the sand flies.[4]

The risk of the disease was inevitable, as IDPs have come from areas known to be endemic with CL. During 2017 and later, after liberating the city of Mosul and its suburbs, especially Sinjar, Tal Afar, and the villages and residential complexes of Nineveh Governorate, the campaign began for the return of the displaced to their liberated lands, but their return was temporary, as they were assured of their property, such as residential homes, farms, etc., so they returned after a few days to Duhok Governorate, and these conditions were the reason behind the presence of CL in Duhok.

The objective of this study was to investigate the characterizations of cases of cutaneous leishmaniasis during the period from 2017 to 2022 in Duhok Governorate by describing the distribution, associated factors, clinical characteristics, and outcomes of reported CL cases.

SUBJECT AND METHODS

Study Design: This was a retrospective descriptive study conducted between December 2023 and March 2024. It utilized patient records from the Directorate of Preventive Health in Duhok Governorate, focusing on documented cases of CL reported between January 2017 and December 2022.

Study Population and Case Definition: The study included all individuals with a confirmed or clinically diagnosed case of cutaneous leishmaniasis recorded during the study period. A CL case was defined as any patient showing typical skin problems (like sores, lumps, or patches) that match the signs of CL, whether or not they had lab tests confirming it (like smear microscopy).

Inclusion criteria: Cases diagnosed between 2017 and 2022 Records containing essential clinical data (e.g., lesion type, location, treatment outcome)

Exclusion criteria: Incomplete records miss key clinical or demographic information. Cases with unconfirmed or ambiguous diagnoses

Data Collection: Researchers retrieved clinical and epidemiological data from the Communicable Disease Unit of the Directorate of Preventive Health in Duhok after obtaining official permissions.

Extracted variables included demographics (age, sex, occupation), lesion characteristics (number, type, anatomical location), exposure history (e.g., animal contact), diagnostic methods (clinical vs. laboratory), Treatment regimen and duration. Clinical outcomes (cure, recurrence, prognosis). All data were anonymized to ensure confidentiality.

A standardized data collection form was used to extract the information, and data entry was cross-checked by two independent reviewers to reduce transcription errors.

Ethical Considerations: Ethical approval for this study was obtained from both the Scientific Research Committee at the College of Medicine, University of Duhok, and the Ethical Committee for Scientific Research at the General Directorate of Health in Duhok.

Data Analysis: Data were initially entered into Microsoft Excel and later exported to IBM SPSS Statistics version 27 for analysis. Descriptive statistics (frequencies, percentages, and visual line charts) were used to summarize demographic and clinical characteristics. Pearson's chi-squared test was applied to evaluate associations between categorical variables (e.g., age group and lesion number/type). A p-value ≤ 0.05 was considered statistically significant and highlighted in bold in the results.

Missing Data: Records with missing critical variables were excluded during data cleaning. No imputation techniques were used.

Bias and Confounding Control: To minimize information bias, only officially documented cases with verified data were included. Data abstraction was done by trained personnel using a standardized form. Since this study looked back at past data, we didn't adjust for other influencing factors with complex models, but we did compare different groups when we could use simpler analysis.

RESULTS

This study covered 261 reported cases of CL. The socio-demographic characteristics of cutaneous leishmaniasis cases from 2017 to 2022 showed that the majority of cases were reported by individuals aged 1–19 years (39.1%), followed by those aged ≥ 40 years (32.6%). While among those aged 20-39 years, 28.3% were. A higher proportion of cases occurred in males (57.5%) compared to females (42.5%). Children constituted the largest occupational group affected (26.0%), followed by housewives (24.8%), unemployed individuals, and others (23.6%). Soldiers accounted for 17.5% of cases, while farmers made up 8.1%. Most cases were reported from Duhok governorate (93.9%), with a smaller percentage from Nineveh (6.1%).The highest number of cases was recorded in 2021, accounting for 61.3% of all cases. Lower numbers were reported in 2017 (16.1%), 2018 (10.3%), 2019 (5.0%), and 2022 (7.3%). Notably, no cases were reported in 2020. (Table 1)

Table 1: Socio-demographic characteristics of the cases of cutaneous leishmaniasis from 2017 – 2022 (n = 261)

Characteristics		No.	%
Age (years)	1 - 19	102	39.1
	20 - 39	74	28.3
	≥ 40	85	32.6
Gender	Male	150	57.5
	Female	111	42.5
Occupation*	Children	67	26.0
	Housewives	64	24.8
	Soldiers	45	17.5
	Farmers	21	8.1
	Unemployed and other	61	23.6
Reporting DOH	Duhok	245	93.9
	Nineveh	16	6.1
Date of onset	2017	42	16.1
	2018	27	10.3
	2019	13	5.0
	2020	0	0.0
	2021	160	61.3
	2022	19	7.3

* There are 3 missing data.

The number of cases of cutaneous leishmaniasis showed a decrease from the year 2017 to the year 2020, with the number of cases reducing from 40 cases to 0 cases. However, from 2020 to 2021, there was a sharp rise in the number of cases—160cases. From 2021 on, however, the number of cases appeared to decrease again, going from 160 to 19 in 2022 (Trend graph. Figure 1).

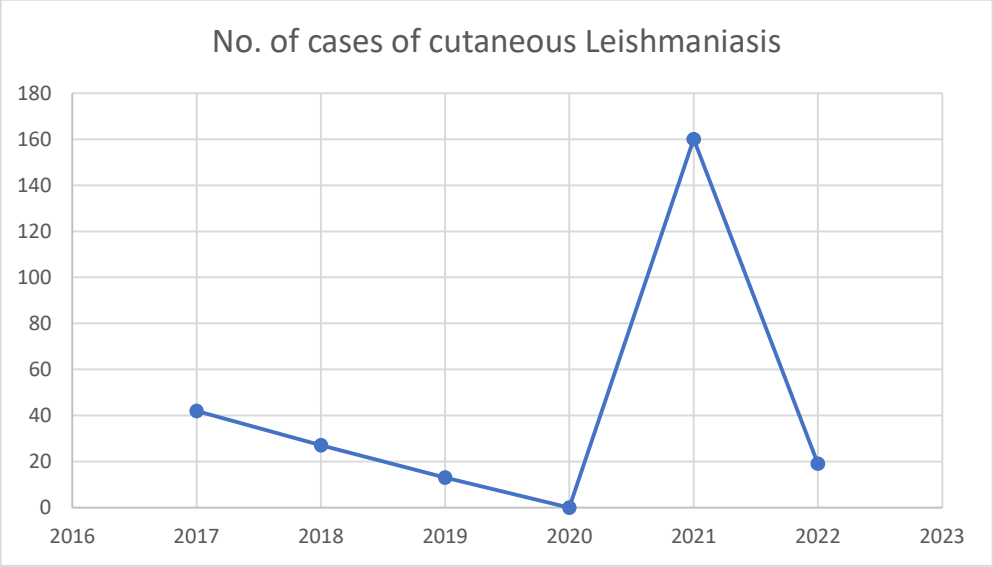

Figure 1. Frequency of cases of cutaneous Leishmaniasis in the period 2017 - 2022

Regarding clinical characteristics of cases of cutaneous leishmaniasis, the study revealed that most of the cases, 136 (52.1%), had multiple lesions, while 125 (47.9%) had a single lesion.The distribution of the lesions reveals that the upper limb was the most affected region, representing 46.4% (121 cases) of the total. The face was affected in 18.8% (49 cases), and the lower limb in 27.6% (72 cases). Also, there were fewer cases in other areas, with 1.1% (3 cases) having both face and upper limb involvement, 0.8% (2 cases) with face and lower limb, and 5.4% (14 cases) affecting both upper and lower limbs. The diagnosis of cutaneous leishmaniasis was predominantly clinical, with 98.5% (257 cases) diagnosed through clinical assessment. Only a small fraction, 1.5% (4 cases), required laboratory confirmation. Regarding treatment modalities, the study population was nearly evenly divided between two approaches: 51.0% (133 cases) received treatment with Pentostam / sodium stibogluconate in combination with antibiotics, while 49.0% (128 cases) were treated with Pentostam / sodium stibogluconate alongside ointments. (Table 2)

Table 2: Clinical characteristics of the cases of cutaneous leishmaniasis

Characteristics		**No.**	**%**
Lesion	Single	125	47.9
	Multiple	136	52.1
Site of lesion	Face	49	18.8
	Upper limb	121	46.4
	Lower limb	72	27.6
	Face+ upper limb	3	1.1
	Face+ lower limb	2	0.8
	Upper and lower limbs	14	5.4
Method of diagnosis	Clinical	257	98.5
	Laboratory	4	1.5
Treatment	Pentostam / sodium stibogluconate+ antibiotic	133	51.0
	Pentostam / sodium stibogluconate+ ointment	128	49.0
Total		**261**	**100.0**

The presence of animals in the vicinity is highlighted, with nearly half of the cases (46.4%, 121 cases) reporting exposure to animals. In contrast, 53.6% (140 cases) indicated no nearby animals. Among the respondents, 44.1% (115 cases) reported having dogs, while 55.9% (146 cases) did not. Notably, 58.5% (152 cases) of the individuals reported the presence of chickens in their environment. The data shows that only 25.0% (65 cases) had sheep and goats present, while a substantial 75.0% (195 cases) did not; however, there was 1 missing data point. The presence of indoor rodents was noted in 41.0% (107 cases) of the respondents, whereas 59.0% (154 cases) reported no indoor rodent presence (Table 3).

Table 3: Frequency of possible risk factors among the Cutaneous Leishmania cases (n = 261)

Possible risk factors		No.	%
Previous lesion	Yes	105	40.2
	No	156	59.8
Presence of animals	Yes	121	46.4
	No	140	53.6
Presence of dogs	Yes	115	44.1
	No	146	55.9
Presence of chicken*	Yes	152	58.5
	No	108	41.5
Presence of sheep and goats*	Yes	65	25.0
	No	195	75.0
Presence of indoor rodents	Yes	107	41.0
	No	154	59.0

* There is one missing datum.

The analysis looks at different risk factors for cutaneous leishmaniasis (CL) on the face, with or without affecting the limbs, compared to CL that only affects the limbs, to see how these factors relate to where the infection occurs.

Age emerged as a statistically significant factor (P = 0.003), with individuals aged 1–19 years being more likely to develop CL on the face (20.6%) compared to those with infections limited to the limbs (79.4%). In contrast, adults aged 40 years and older had a higher proportion of CL localized to the limbs (89.4%), and the difference in age distribution was significant, indicating that younger individuals are more prone to facial involvement.

Gender did not show a significant association with the site of infection (p = 0.359). Both males and females had similar distribution patterns of infection between the face and limbs.

Regarding occupation, there was no significant difference (p = 0.582) in the distribution of CL between those with face involvement and those with limb-only involvement. While children represented 25.4% of face cases, there was no distinct pattern among other occupational groups such as housewives, soldiers, farmers, and the unemployed. It is worth mentioning that there was only one missing data point.

For the presence of previous lesions, no significant association was found (p = 0.246). Exposure to animals (p = 0.992), including dogs (p = 0.497), chickens (p = 0.156), and sheep and goats (p = 0.112), did not appear to influence the site of infection. The distribution of CL on the face versus limbs was similar regardless of animal exposure.

Presence of indoor rodents showed a moderate trend (p = 0.230), with a higher percentage of face infections (24.3%) compared to limb infections (75.7%) in individuals exposed to indoor rodents. However, this association was not statistically significant. (Table 4).

Regarding possible risk factors for developing multiple lesions of cutaneous leishmaniasis compared to single lesions,

the following observations can be made: Age appears to be significantly associated with the type of lesion (p = 0.021). Individuals aged 1–19 years and 20–39 years had a higher proportion of multiple lesions (59.8% and 55.4%, respectively),

Table 4: Possible risk factors for cutaneous leishmaniasis affecting the face (with or without the limbs), compared to that affecting the limbs only (n = 261)

Possible risk factors		Site of boil(s)					
		Face		Limb(s) alone		Total	*P* value
		No.	%	No.	%	No.	
Age (years)	1 - 19	21	20.6	81	79.4	102	**0.003**
	20 - 39	24	32.4	50	67.6	74	
	≥ 40	9	10.6	76	89.4	85	
Gender	Male	34	22.7	116	77.3	150	0.359
	Female	20	18.0	91	82.0	111	
Occupation*	Children	17	25.4	50	74.6	67	0.582
	Housewives	10	15.6	54	84.4	64	
	Soldiers	11	24.4	34	75.6	45	
	Farmers	3	14.3	18	85.7	21	
	Unemployed and other jobs	12	19.7	49	80.3	61	
Previous lesion	Yes	18	17.1	87	82.9	105	0.246
	No	36	23.1	120	76.9	156	
Presence of animals	Yes	25	20.7	96	79.3	121	0.992
	No	29	20.7	111	79.3	140	
Presence of dogs	Yes	26	22.6	89	77.4	115	0.497
	No	28	19.2	118	80.8	146	
Presence of chicken**	Yes	27	17.8	125	82.2	152	0.156
	No	27	25.0	81	75.0	108	
Presence of sheep and goats**	Yes	18	27.7	47	72.3	65	0.112
	No	36	18.5	159	81.5	195	
Presence of indoor rodents	Yes	26	24.3	81	75.7	107	0.230
	No	28	18.2	126	81.8	154	

* There are 3 missing data
** There is one missing datum.
NB. P values were calculated using Chi square test.

whereas those aged 40 years and above were more likely to have single lesions (60%). Gender does not show a statistically significant association with the lesion type (p = 0.225). While males had a slightly higher proportion of multiple lesions (55.3%) compared to females (47.7%), the difference was not substantial. Occupation showed some variation, but the association was not statistically significant (p = 0.159). Housewives had the highest proportion of multiple lesions (62.5%), followed by soldiers (57.8%) and farmers (57.1%). In contrast, children (43.3%) and individuals Dog presence showed no significant association with lesion type (p = 0.446). Similarly, the presence of chickens did not significantly influence lesion type (p = in other jobs or unemployed categories (45.9%) were more likely to have single lesions.

There was no significant difference in the likelihood of multiple versus single lesions based on previous lesion history (p = 0.942). The proportions were nearly identical for those with (52.4%) and without (51.9%) a history of lesion.

The presence of animals near the household was not significantly associated with lesion type (p = 0.210). Individuals with animals had a slightly higher prevalence of single lesions (52.1%) compared to multiple lesions (47.9%).

0.256). While Sheep and Goats, a significant association was observed (p = 0.010). Individuals exposed to sheep and goats had a lower proportion of multiple

lesions (38.5%) compared to single lesions (61.5%). The presence of indoor rodents was not significantly associated with lesion type (p = 0.089). However, individuals with indoor rodents had a slightly higher proportion of single lesions (54.2%) compared to multiple lesions (45.8%). (Table 5)

Table 5: Possible risk factors for cutaneous leishmaniasis with multiple-lesions, compared to that with single lesion (n = 261)

Possible risk factors		No. of boils				Total No.	*P* value
		Multiple		Single			
		No.	%	No.	%		
Age (years)	1 - 19	61	59.8	41	40.2	102	**0.021**
	20 - 39	41	55.4	33	44.6	74	
	≥ 40	34	40.0	51	60.0	85	
Gender	Male	83	55.3	67	44.7	150	0.225
	Female	53	47.7	58	52.3	111	
Occupation*	Children	29	43.3	38	56.7	67	0.159
	Housewives	40	62.5	24	37.5	64	
	Soldiers	26	57.8	19	42.2	45	
	Farmers	12	57.1	9	42.9	21	
	Unemployed and other jobs	28	45.9	33	54.1	61	
Previous lesion	Yes	55	52.4	50	47.6	105	0.942
	No	81	51.9	75	48.1	156	
Presence of animals	Yes	58	47.9	63	52.1	121	0.210
	No	78	55.7	62	44.3	140	
Presence of dogs	Yes	57	49.6	58	50.4	115	0.446
	No	79	54.1	67	45.9	146	
Presence of chicken**	Yes	75	49.3	77	50.7	152	0.256
	No	61	56.5	47	43.5	108	
Presence of sheep and goats**	Yes	25	38.5	40	61.5	65	**0.010**
	No	111	56.9	84	43.1	195	
Presence of indoor rodents	Yes	49	45.8	58	54.2	107	0.089
	No	87	56.5	67	43.5	154	

* There are 3 missing data
** There is one missing datum.
NB. P values were calculated using Chi square test.

DISCUSSION

This study showed a higher percentage of cutaneous leishmaniasis among individuals aged 1–19 years, which corresponds with the findings of studies done in Hajiabad County, Iran, that revealed the disease is more prevalent in young age groups. It is also similar to the results of studies carried out in Ilam, Kerman, Fars, and Golestan Provinces[5-7] and other studies conducted in Pakistan and Afghanistan that showed CL was more prevalent in young age groups.[8] And similar to the findings of a study conducted in the Middle East region, including the Kingdom of Saudi Arabia, Iraq, Syria, and Yemen.[9]

In this study, the findings showed males were infected more than females, which is in accordance with other epidemiologic studies in Iran that revealed a higher incidence rate of CL in men. [10-13] Similar findings have been reported from other endemic countries such as Saudi Arabia,[14] Pakistan,[15] Iraq,[16] Syria,[17] Jordan, Yemen,[4,18] Libya, Algeria,[19] Bolivia,[20] and Brazil[21] where males had higher CL infection than females

Men and women are at different risks of contracting CL infection due to gender role

inequalities and not biological traits linked to sex.[21] In this regard, social activities, type of clothing, and the presence of men outside the home increase their contact with infective sand fly vectors. Also, a higher incidence of the disease in men could be due to factors such as their business and travel to endemic regions[22,23].

This study revealed that children, housewives, and unemployed individuals were the most affected occupational groups. Geographically, Duhok was the origin of most cases, with a striking increase in cases reported in 2021, compared to no cases reported in 2020. The results demonstrate the importance of targeted prevention and control strategies in high-risk demographics and geographic regions.

This study highlights the predominance of multiple lesions, which does not agree with the finding in Hajiabad, Iran, that revealed the majority of lesions were single (51.4%). [24] While a concentration of lesions on the upper limbs revealed in this study is in line with other studies conducted in Iraq, Iran, Syria, Turkey, Tunis, Algeria, and Morocco, they showed that the CL lesions were mainly on the exposed areas of the body, such as the face, hands, and feet.[25] Such a distribution pattern of the lesions has been reported from different parts of Iran[25,26].

This study showed a high reliance on clinical diagnosis, which does not correspond with findings of other studies conducted in Iran, Iraq, and North Africa. [27] This study found that varied treatment approaches were used, with a slight preference for systemic therapy in combination with antibiotics. These findings can inform future research and clinical management strategies for managing CL.

This study finding showed that a significant portion of the population had a history of previous lesions, suggesting that while previous skin lesions may be common among some individuals, a majority did not have this risk factor. Also showed nearly half of the cases reported animal exposure, like dogs. Given that dogs can be significant hosts for leishmaniasis vectors, their presence could potentially elevate the risk of disease transmission. This is similar to the findings of other studies conducted in The Middle east, mainly in Saudi Arabia.[28] Meanwhile, the high percentage of respondents having chickens in their environment suggests that poultry might be a notable risk factor for cutaneous leishmaniasis, as indicated by the majority of the cases, while the study revealed that sheep and goats may not be significant risk factors in this population. Whereas the finding implies that indoor rodent exposure could also contribute as a potential risk factor for acquiring cutaneous leishmaniasis. Generally the analysis of the potential risk factors for cutaneous leishmaniasis suggests a marked prevalence of individuals with previous lesions and those in proximity to chickens, dogs, and other animals. Although the presence of sheep and goats appears less significant, the data highlights indoor rodents as a potential risk factor. Though the data revealed that proximity to animals may be a relevant risk factor, the majority were not in situations where animal presence was noted.

These insights can contribute to understanding the epidemiology of cutaneous leishmaniasis and inform targeted interventions to mitigate risk factors.

Regarding the site of infection, findings showed that age was the only factor with a significant association with the site of infection, with younger individuals more likely to experience CL on the face, similar to other regions in Iraq,[29] Iran,[30] Turkey[31,32] and Saudi Arabia.[33,34]

Other potential risk factors, such as gender, occupation, and animal exposure, did not show a significant effect on the

localization of the infection. These findings suggest that age-related factors, rather than environmental or occupational exposures, may play a larger role in determining the site of CL lesions. Further studies could explore additional age-related or biological factors that might explain these observations. Also, there was no significant association concerning the presence of previous lesions, suggesting that individuals with a history of cutaneous leishmaniasis were not more likely to develop CL on the face versus the limbs. The results in this study indicate that age and the presence of sheep and goats are significant risk factors for multiple lesions of cutaneous leishmaniasis. Younger individuals (1–39 years) and those not exposed to sheep and goats are more likely to develop multiple lesions. Other factors, including gender, occupation, previous lesions, and the presence of animals (dogs, chickens, or rodents), showed no significant associations.

The specific associations with multiple versus single lesions vary. In Iraq, younger age groups and certain occupations like housewives and soldiers are more associated with multiple lesions. In contrast, in Iran, environmental and ecological factors play a more pronounced role in disease prevalence.[35]

Conclusion. Close surveillance of vector and reservoir is needed to monitor the epidemiology and control of the disease, with early diagnosis, targeted education and risk mitigation.

Competing interests. The authors declare no competing interests.

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پەتایا لیشمانیا پێستی ل پارێزگەها دهوکێ-ئیراق ل ماوێ دناڤبەرا ساڵا2017 -2022

پوختە

پێشەکی و ئارمانج: لیشمانیا پێسستی نەخوشیەکا ئیندیمیکە ل عیراقێ و ب تایبەتی ل ناوچێت ناوەڕاست و باشوورلێ ل هەرێما کوردستانێ یا دهگمەنە. لێ لپشتی هاڤینا ساڵا 2014 ێ ئاوارەبوونەکا بەرفرەە یا دانشتیێن نافخویێن عیراقێبۆ کوردستانێ ڕوویدا،وە بو ئەگەرێ پەیدابوونا ڤێ پەژیێ ل پارێزگەها دهوکێ . ئارمانجا ڤێ توێژینەوێ دیفچوونا تایبەتمەندیێن کەیستن ڤێ پەتایێ کو ل پارێزگەها دهوکێ هاتینە تومارکرن د ماوێ دناڤبەرا ساڵا 2017 و هەتا 2022 ێ ب هەژمارکرنا ڕێژا بەڵاڤبوونێ و هوکارێن مەترسیێ و پێشبینی و پێشنیارا.

ڕێکێن ڤەکولینێ: توێژیەوەیکا پاشگەزبووی ب مفا وەرگرتن ل کەیستن لیشمانیا پێستی یێن تومارکری هاتە ئەنجامدان کو ل ڕێڤەبەریا خوپاراستنا ساخلەمیێ ل پارێزگەها دهوکێد ماوێ دناڤبەرا ساڵا 2017 هەتا 2022 هاتینە تومارکرن . ئەو زانیارییێن هاتینە وەرگرتن بریتی بوون ژ جور و جهێ برینێ و شێوازێ دەستنیشانکرنێ و چارەسەریێ و پێشبینیا ڕێژا چاکبوونێ و ماوێ چارەسەرکرنێ و دووبارە بوونێ.

ئەنجام: ڤێ توێژینێ 261 کەیستێن راپورتکری ب خوڤەگرتبوون, پتریا کەیسا ژ ڕەگەزێ نێر بوون (57.5%) و زوربەی کەیسا د ژییێ 1-19 ساڵی بوون (39.1%) و زاروك پتریا تووشبوویا بوون (26.0%). ڕێژا هەرە زور یا کەیسا ل پارێزگەها دهوکێ هاتبوونە تومارکرن (93.9%)لێ ل پارێزگەها نەینەوا بتنێ(6.1%) تومارکربوون . زۆرترین ژمارێن تووشبوویا ل ساڵا 2021 ێ هاتینە تومارکرن (61.3%) لێ ل 2020 ێ چ کەیس نەبوون . زێدەتر ژ نیڤا کەیسا (52.1%) تووشی چەندین کولکێن پێستی یێن لیشمانیایێ ببوون . (46.4%) ژ کوومێ کەیسا کولك ل دەست و زهند و باسکا هەبوون . (98.5%) ها تبوونە دەست نیشانکرن ل سەر ڕوشنایا پشکنینا کلینیکی . (46.4%) ئەو بوون یێن نزیکی ئاژەڵا یان ئاژەڵداربوون . تووشبوون ب چەندین کولکا و ل سەرو چاڤا زورتر بوو د ناڤ گەنجادا . لێ یێن د ژیێ 40 ساڵیێ و وێڤە ئێك کولك هەبوون . کابانیێن مالا , سەرباز و پاشی جوتیار زورترین ڕێژا هەبوونا چەندین کولکا هەبوو.

دەرئەنجام: ئەنجامێن ڤێ ڤەکولینێ ئاماژە پ هندێ کریە کو هێشتا پارێزگەها دهوکێ نە بوویە جهەکێ ئێندیمیك بو نەخوشیا لیشمانیا پێستی. سەرەڕای ڤێ چەندێ بەرنامێن پەروەردەیی یێن گونجای کو گرنکیێ بدەتە ڤەگوهاستن و ڕێکێن خوپاراستنێ د گەل چاڤدێڕی و زێرەڤانیەکا چر و پر تر ژ بودەستنیشانکرن و تومارکرن و چارەسەریا کەیسا بلەز تر و خو جهتر زۆر یا گرنگە.

الملف الوبائي لمرض الليشمانيا الجلدية في محافظة دهوك-العراق خلال الفترة 2017-2022

الخلاصة

الخلفية والأهداف: داء الليشمانيات الجلدي هو مرض متوطن في العراق، وخاصة في المناطق الوسطى والجنوبية. ومع ذلك، فإن المرض نادر في إقليم كردستان العراق. بعد صيف عام 2014، كان هناك نزوح هائل للسكان إلى كردستان، وخاصة إلى دهوك، وهي المحافظة الوحيدة في العراق التي لم تسجل أي حالات من داء الليشمانيات الجلدي بين السكان الأصليين. والهدف من هذه الدراسة هو التحقيق في خصائص حالات داء الليشمانيات الجلدي خلال الفترة من 2017 إلى 2022 في محافظة دهوك، من خلال حساب معدل انتشار الحالات وعوامل الخطر وتوقعات سير المرض.

الطرق: أجريت دراسة استرجاعية باستخدام سجلات حالات اللشمانيا الجلدية المبلغ عنها في مديرية الصحة الوقائية في محافظة دهوك للفترة من 2017 إلى 2022. تضمنت المعلومات التي تم جمعها نوع ومكان الآفة وطريقة التشخيص والعلاج والتنبؤ فيما يتعلق بمعدل الشفاء وفترة العلاج وتكرار الحالة.

النتائج: شملت هذه الدراسة 261 حالة مسجلة من CL؛ غالبيةالحالات كانت بين الذكور(57.5٪) و أعمارهم بين 1-19 سنة(39.1%). الاطفال كانت أكبر فئة مهنية متضررة(26.0%)، وتم الإبلاغ عن معظم الحالات من محافظة دهوك (93.9٪)، مع نسبة أقل من نينوى (6.1٪). تم تسجيل أعلى عدد من الحالات في عام 2021، حيث بلغت 61.3٪ من جميع الحالات ولم يتم الإبلاغ عن أي حالات في عام 2020. كان لدى أكثر من نصف الحالات (52.1٪) إصابة جلدية متعددة ، أغلبها في الأطراف العليا (46.4٪). كان تشخيص CL سريريًا في الغالب (98.5٪).. أفاد(46.4٪) بالتعرض للحيوانات. الأفراد الأصغر سنًا كانوا أكثر عرضة للإصابة بالوجه و بإصابات متعددة. بينما كان أولئك الذين تتراوح أعمارهم بين 40 عامًا وما فوق أكثر عرضة للإصابة بإصابات مفردة (60٪). أعلى نسبة من الآفات المتعددة كانت لدى ربات البيوت يليهن الجنود ثم المزارعون.

الاستنتاجات: أشارت نتائج الدراسة الحالية إلى أن داء الليشمانيات الجلدي لا يزال غير متوطن في محافظة دهوك، وعلاوة على ذلك، فإن البرامج التعليمية المناسبة التي تركز على انتقال المرض وطرق الوقاية منه جنبًا إلى جنب مع المراقبة النشطة للكشف السريع عن الحالات وعلاجها ضرورية للحد من انتشار داء الليشمانيات الجلدي.