Clinco-Epidemiological Study of Cutaneous Leishmaniasis in Al-Yarmouk Teaching Hospital

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Abstract:
Aim of the study: **is to study** the clinico-epidemioogical pattern of Cutaneous Leishmaniasis in Iraq.
Patients & Methods: A cross-section study was designed where the patients with Cutaneous Leishmaniasis were collected from out patient clinic of dermatological and venereal diseases of Al-Yarmouk Teaching Hospital during the period from 1st December 2000 to 31st August 2001.
Results: Fifty patients with Cutaneous Leishmaniasis were collected during the study period. The patients were divided into two groups according to their age; the first age group was between 15-50 years which comprised 76% of all cases, while the second group was between 1-6 years that comprise 24%. Males were 22 and females were 28. The wet form was the commest type of the disease (62%), and Dry form was less common (36%). Solitary lesion was the commonest (36%). The exposed parts of the body were the common sites of presentation which include lower limbs, upper and the face. The common size of lesions was between 1.5X2 cm (60%). The high peak incidence was in October.
Conclusion: we conclude that the wet form was the commonest form of cutaneous leishmaniasis. The solitary lesion was still the common. The exposed areas of the body were sites of presentation include lower limbs, upper limbs, and face. And lastly, the high peak incidence of the disease was in October and absence of the cases from January to August.

Keywords: Leishmaniaisis Cutaneous

Introduction:-

Leishmanisais are a group of diseases caused by several species of the genus leishmaniasis. Each species tends to occupy a particular zoo-graphical zone. Species are morphologically identical and are distinguished by isoenzyme pattern and DNA analysis [1].

Leishmaniasis currently affects some 12 million people in 88 countries; all but 16 of them are in the developing world with 350 million people at risk of infection by different species [2].

Cutaneous leishmaniasis is estimated to cause 1-5 million new cases per year [3].

Sarhan found that cutaneous leishmaniasis has been endemic in Iraq; the incidence of this disease was on the decline till the 1980 when there was an increase in the recorded cases [4].

Diagnosis of the disease is based on the clinical picture which has a wide range of clinical varieties that may simulate other skin diseases, confirmation is through demonstration of the parasite by smear or culture on Novy-Macneal-Nicolles meduim when biopasy is taken for histopathology a portion of it should be cultured and lab smears made from the cut surface of the other portion before it is fixed [5].

The aim of this work is to study the clinico-epidemioogical pattern of Cutaneous Leishmaniasis in Iraq.

Patients & methods:-

In this cross-section study, the patients with Cutaneous Leishmaniasis were collected from out patient clinic of dermatological and venereal diseases of Al-Yarmouk Teaching Hospital from the period between 1st December 2000 to 31st August 2001.

Diagnoses of the disease are based on the clinical picture only, and a special questionnaire was filled which include age, sex, onset of the disease, previous scar of infection.

Through examination of the patients was done to assess the clinical forms, site of presentation of the lesions, the number of lesions and the size of the lesion.

Results:-

Fifty patients of cutaneous leishmaniasis were collected during the study period. Two age groups were found, the first group was between 15-50 years which comprise 76% of cases while the second group was between 1-6 years that comprise 24%. Males were 22 and females were 28.

Regarding the clinical type, the majority of cases were presented as the wet (ulcerative) form and the dry (late ulcerative) form (62% and 36% respectively). The remaining 2% had been presented as chronic lupoid cases. Diffuse leishmaniasis was not found in the current study. In addition, there were no recurrent cases (Table 1). Concerning the number of lesions, the minimum seen was one and the maximum was ten lesions. A single lesion was found in about 36% of all cases, two lesions were found in 28%, and the ten lesions were found in 2% of all cases (Table 2).

Table 1 showed the distribution of cases according to the clinical type

Type of lesion	Patients	Percentage
Wet type	**31**	**62%**
Dry type	**18**	**36%**
Chronic lupoid type	**1**	**2%**
Diffuse type	**-----**	**------**

Table 2 showed the distribution of cases according to the number of lesions of lesions.

Number of lesions	Patients	Percentage
1	18	36%
2	14	28%
3	12	24%
4	1	2%
5	2	4%
6	1	2%
7	----	-----
8	----	-----
9	1	2%
10	1	2%

Table 3 showed the site of presentation of the cases, the most common area was the lower limbs (46.3%), followed by the upper limbs (30.5%) then the face (23.2%) while on the trunk there were no lesions, also there were no lesions on the palms and soles, about 100% of the lesions were found on the exposed areas of the body (lower limbs, upper limbs & face).

The size of lesions were ranged from 0.5 to 3 cm in diameter, where in 60% of cases, the size was lie between 1.5X2 cm, 26% was between 0.5X1 cm and 14% was between 2.5X3 cm (Table 4).

The peak incidence and months variations is shown in table 5, most cases were detected from September to the end of December, where the high peak incidence was in October which consists 56% , 22% in November, in December 12% and in September 10%. There were no recorded cases from January till August 2001.

Table 3 showed the distribution of cases according to the site of presentation.

Area	Site	Number of lesions	Percentage

Head and neck	**Face**	27	23.2%
	Neck	1	
Upper limbs	**Hands**	23	30.5%
	Forearms	14	
Lower limbs	**Feet**	8	46.3%
	legs	48	
Trunk	**Chest**	----	----
	back	----	----

Table 4 showed the distribution of cases according to the sizes of lesions.

Size (cm)	Patients	Percentage
0.5X1 cm	13	26%
1.5X2 cm	30	60%
2.5X3 cm	7	14%

Table 5 showed the monthly distribution of cases and peak incidence.

	Month	No. of patients	Percentage
Year 2000	**September**	5	10%
	October	28	56%
	November	11	22%
	December	6	12%
	January	---	---
Year 2001	**February**	----	---
	March	---	---
	April	---	---
	May	---	---
	June	---	---
	July	---	---
	August	---	---

Discussion:-

Cutaneous Leishmaniasis shows a much varied clinical picture, the variations are found in the same area or even in the same patient [5] so in this study, both dry and wet lesions were presented in the patients from the same area.

In this study, single lesion is the most common while multiple lesions are rare. This finding is comparable with other study that show the single

lesion was the most common while multiple lesions were rare [6]. The single lesions are usually detected in leishmania tropica infection, while multiple lesions are seen in leishmania major infection [7, 8]. Rahim and Tatar in Iraq found the majority of cases (60%) had between one to four lesions [9]. While in other previous study in Iraq, the large number of lesions was 41 lesions but it occurs in one case of the study [10].

In the present study the lower limbs were the first site, the second was the upper limbs and then the face. While the previous studies in Iraq showed that the face was the first site [9, 11], these studies had taken place in endemic areas at which infection is encountered early in life where the face is the main exposed area. While other studies showed that the disease appears with almost equal frequencies upon the face, arm or legs, as these all are exposed areas [6].

No skin lesions were found on the palms and soles because probably this areas have thick and it is difficult to be bitten by the vector, also there were no cutaneous lesions detected on the trunk because probably this area is covered and it is difficult to be reached by sand fly .

In this study, it was noticed that the close lesions may coalesce to form a single larger one. The presence of secondary bacterial infection may affect the size of lesion.

Regarding the peak incidence of cutaneous leishmaniasis in the current study, most cases were detected from September to the end of December, where the high peak incidence was in October. This result more or less agree with finding of Wenyan, 1911 and Rahim and Tatar in Iraq, 1966 [6 , 9]. In the present study we noted that the cases of cutaneous leishmaniasis are not found all over the year and in this condition this study is differ from previous study in Iraq by Madhat, 1984, which consider that cutaneous leishmaniasis are presented all over the year [10].This fact reveals that there is decline in the disease from January to August.

From the study, we conclude that the wet form was the commonest from of cutaneous leishmaniasis. The solitary lesion was still the common. The exposed areas of the body were sites of presentation include lower limbs, upper limbs, and face. And lastly, the high peak incidence of the disease was in October and absence of the cases from January to August.

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