

## PROSPECTIVE STUDY OF CUTANEOUS LEISHMANIASIS IN AL-RABTA, LIBYA

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One hundred and forty seven cutaneous leishmaniasis cases were interviewed and examined during the period from January to December 1992 in Al-Rabta in Jabal Nafusa. Clinically most of the lesions are multiple and distributed on the uncovered regions of the body, and the size ranged from 2 to 7.5 cm in diameter. Of 147 cases 92 males (62.5%) were found to be infected with active lesions. 66.0% of CL cases being observed in age groups 11-30 years of age. Patients were responded well to the treatment with sodium stibogluconate.

### INTRODUCTION

Cutaneous leishmaniasis was recorded in 1912 for the first time in Libya (Onorato, 1931). Since 1971 increasing numbers of cases were recorded over area at northwestern region of Libya (Kadiki & Ashraf, 1971; Bushwereb, 1975; Ashford *et al.* 1976; El-Buni *et al.* 1993, 1996). The localities in which cases were described varied in altitude from sea level to 800 m. a.s.l. This covers the range of bioclimatic zones from almost Saharan (Owazen) to semi-arid (Bader).

### MATERIALS AND METHODS

#### *Study area:*

Al-Rabta is a village of 1,890 population, lies on the foot of Jabal Nafusa at an altitude of 300 m. a.s.l. (Fig. 1). Geographically considered a semi-arid area, where the temperature exceeds 40°C during summer, while in winter declines to less than 10°C. Average rainfall is 20 mm during rainy season.

This study was carried out during the period from January to December 1992, with a 3 day visit per month. Clinically suspected cases were gathered at the Health Center. Bioptic samples taken from the edge of suspected lesions were smeared on slides and stained by Giemsa stain. Parasites were searched microscopically.

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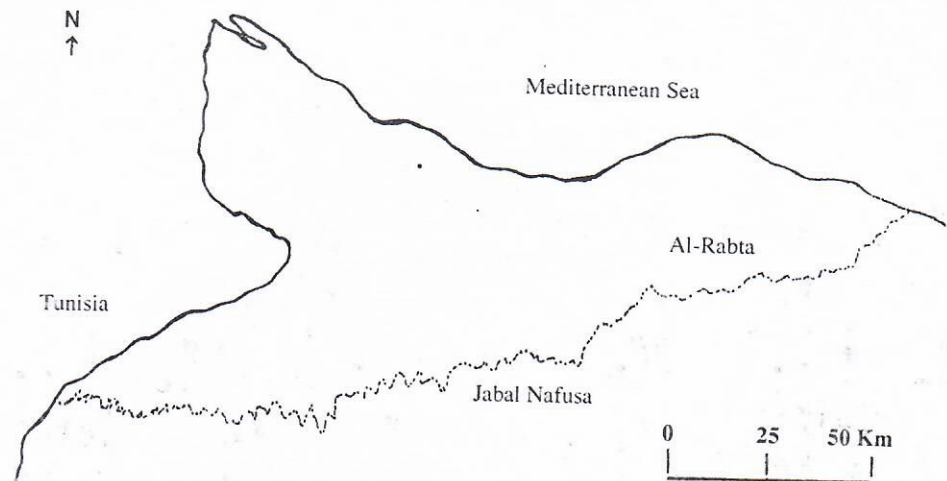


Fig. 1 - Map of the North-western region of Libya, showing the location of Al-Rabta

#### RESULTS

A total of 147 cases of CL were recorded during this study, of which 92 (62.5%) were males. The sex ratio (M:F) was 1.67:1.00. The monthly record of cases (Table 1) shows that there was a peak of incidence (31 cases, 21.1%). The age distribution of CL cases is shown in Table 2. The highest number of cases (38 cases, 25.9%) was detected in the age group 1-10 years old, while in old age groups 61-70 and >70 years old was very low (7 cases, 4.8%) respectively. In both sexes, lesions were multiple and ulcerative type distributed on uncovered parts of the body (face, limbs and other sites). This clinical pattern is typical of infections due to *Leishmania maior*. Sodium stibogluconate is the drug of choice.

Table 1 - Monthly recorded CL cases in Al-Rabta during the period from January to December 1992

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Males	7	4	3	1	2	2	3	6	10	19	17	18
Females	1	4	1	3	-	-	2	2	9	8	14	11
Total	8	8	4	4	2	2	5	8	19	27	31	29

Table 2 - Sex and age-groups distribution of CL cases in Al-Rabta

		1-10	11-20	21-30	31-40	41-50	51-60	61-70	>70
Males	2	20	20	15	10	9	6	6	4
Females	2	18	14	8	3	4	2	1	3
Total	4	38	34	23	13	13	8	7	7
%	27	25.9	32.1	15.7	8.8	8.8	5.4	4.8	4.8

## DISCUSSION

This disease is endemic in Jabal Nafusa (Ashford *et al.*, 1976; El-Buni *et al.*, 1996). Survey carried out by El-Buni *et al.*, 1997) indicated that *Phlebotomus papatasi* a proved vector of *Leishmania major* (El-Buni *et al.*, 1994) was abundant between August and October. Hence it is reasonable to assume that the incubation period lies between 2 and 5 weeks.

The prevalence data revealed that young age groups were more affected than old age groups, which would indicate that this endemic status is not a new occurrence in Al-Rabta.

In middle and old age groups males were more infected than females. This may indicate that adult males are more exposed to the infection and females may not seek medical advice.

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