Profile of Patients of Cutaneous Leishmaniasis from Multan

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Abstract

Objective: Cutaneous leishmaniasis is endemic in Multan. Therefore this study was undertaken to elurcidate the epidemiological features with main emphasis on the geographical distribution of the infection in Multan.
Settings: Multan city Dermatology outpatient department, Nishtar Medical College.
Method: Records of 173 diagnosed patients of cutaneous leishmaniasis were retrospectively reviewed according to the age, sex, number and site of lesions, results of the smear for LD bodies and residential area. Results: The disease was more common in the children and young adults, with male to female ratio of 3:2. The maximum number of lesions were on the lower legs. Sixty five percent of the patients were from the interior old city.
Conclusion: The main focus of infection is in old interior part of the city with microfoci of the disease scattered throughout the city (JPMA 51:279:2001).

Introduction

Cutaneous Leishmaniasis or Oriental Sore, is a very ancient parastic disease, the most ancient medical document being Ebers Papyrus in Egypt, which dates back to 2000 year BC[1]1. It is acquired through the bite of infected female phlebotamine sandfly, transmitting different species of protozoa leishmania and resulting in noduloulcerative skin lesion, which ultimately leads to scar formation.
It is prevalent in tropical and subtropical areas throughout the world, affecting millions of people. In Pakistan cutaneous leishmaniasis occurs throughout the country, but is highly endemic in the provinces of Baluchistan and N.W.F.P[2,3]. In Punjab the disease is restricted to Multan and Dera Ghazi Khan and in Sindh the disease has been reported from Karachi, Dadu, Larakana and Jacobabad districts[4]. Although a self-limiting disease, the chronicity and disfigurement that it causes, cutaneous leishmaniasis, is of medical importance[5]. Therefore this study was undertaken to find out the epidemiological features with main emphasis on pointing out the areas in Multan, where it is prevalent, so that the control and preventative measures could be taken in these areas.

Patient and Method

Nishtar Hospital provides medical care to the urban area of Multan, which consists of the interior old city and the surrounding new colonized areas and the rural population around Multan. Therefore the case records of the patients only from Multan were reviewed for the period Februray 1999-August 2000. The cases were clinically and parasitologicaHy (smear for LD bodies) confirmed. In case of negative smear the diagnosis was confirmed by histology. These cases were stratified according to age, sex, number and site of lesions, smear positivity for LD bodies and area of residence.

Results

During the 19 month period, case records of 173 patients of cutaneous leishmaniasis, from Multan were reviewed.

Persons of all age groups and both sexes were effected. One hundred and three (60%) were male and 70 (40%) females with male to female ratio of 3:2. The mean age (+SD) was 18.9 (+ 12.3) years with the disease being most common in children and young adults, 64% of the patients were less than 20 years (Table).

Table. Age of Patients of Cutaneous Leishmaniasis.

Age	Number of Patients	Percentage
0-10	49	28
11-20	63	36
21-30	31	18
31-40	19	11
41-50	8	5
51-60	3	2
Total Patients	173	100%

Three hundred and sixty five lesions were present in all patients. Sixty seven percent of the lesions were present on legs, forearm, foot, hand and cheek, in that order of frequency ((Figure 1).

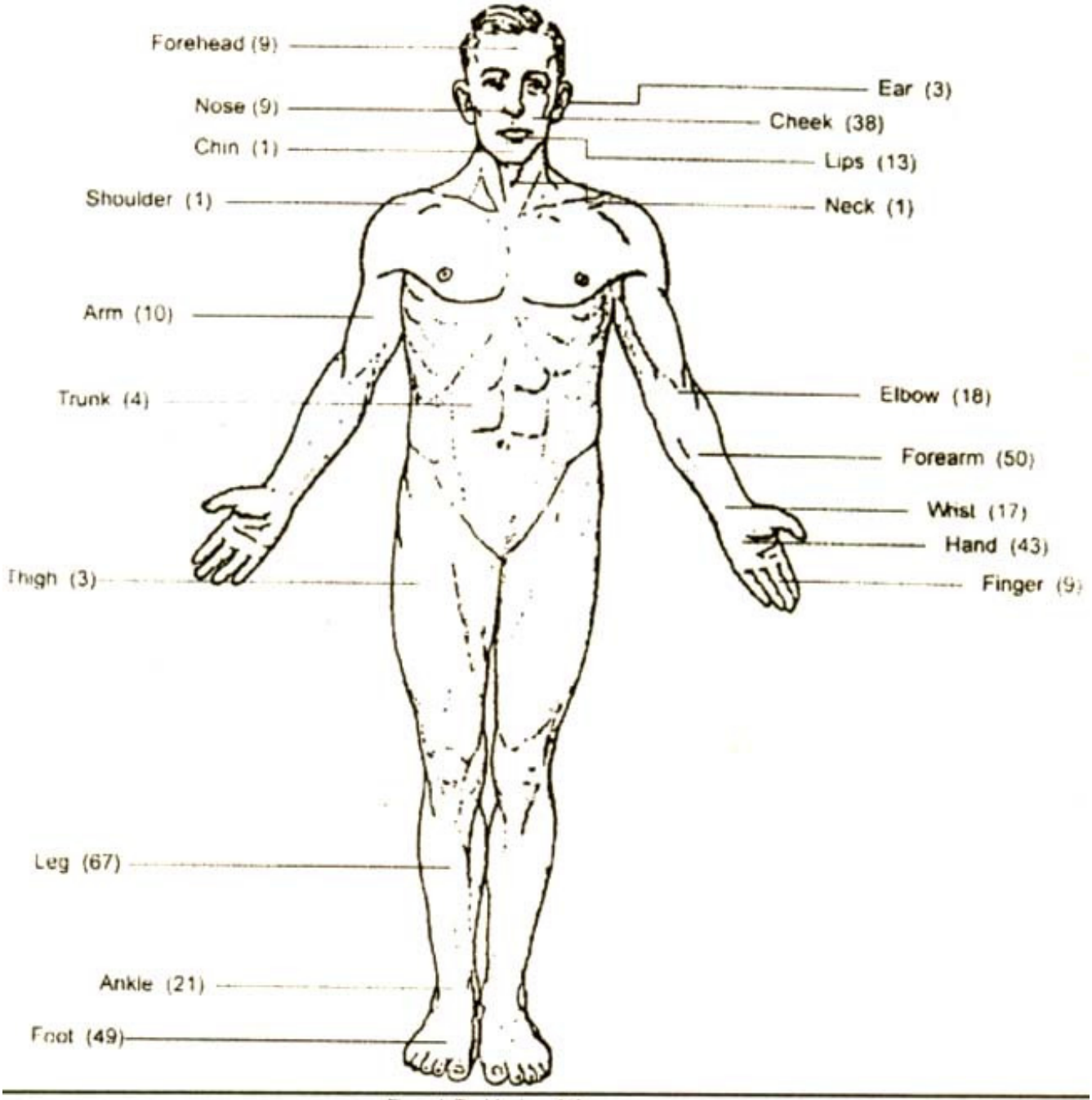

Figure 1. Total Lesion= 365.

Clinically all the lesions were of dry type. The smear for LD bodies were positive in 135 patients (78%). negative in 16 (9%) while in 22 patients (13%) it was not done. Those with the negative smear had predominantly lymphocytes in the smear.

Sixty five percent of the patients were from the old central city and the adjacent area (Figure 2).

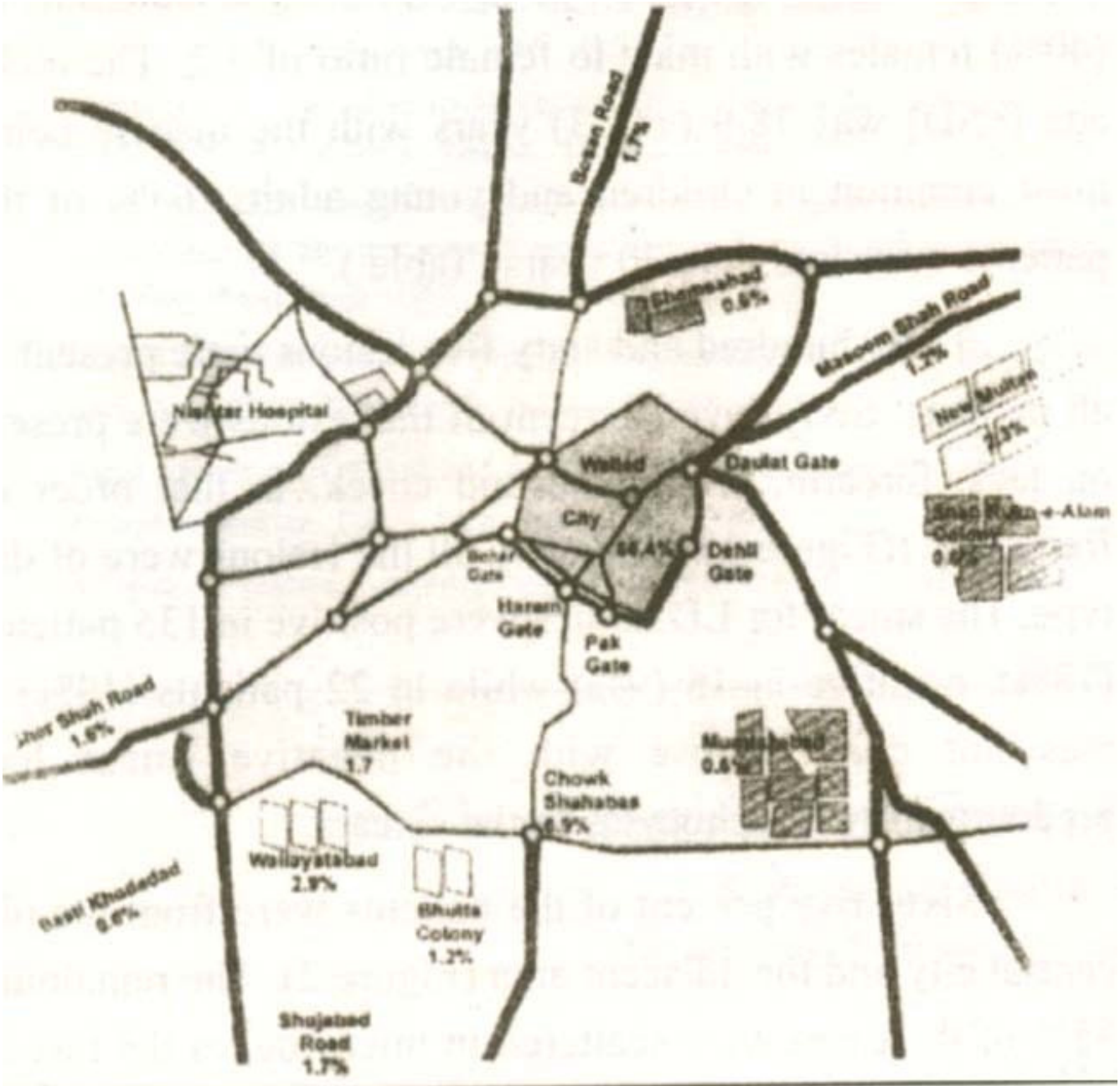

Figure 2. Percentage of Patients from Different Areas of Multan.

The remaining 35% of the cases were scattered in microfoci in the rest of the city.

Discussion

Cutaneous leishmaniasis has been endemic in Multan for long time[6]. A single attack of disease confers life-long immunity against that species[7]. Natural immunity is thus present in the endemic areas. Therefore the disease was mainly present in non-immunised children and young adults, who had not been exposed to the disease, an experience familiar to others[8]. Male predominance is most wiely due to out-door professions and their habit of sleeping outside without bed-nets or proper clothing during night when the sandflies are active[9]. Thus majority of the lesions was on the exposed parts the limbs

and face because these are the areas, which are easily accessible for the sandfly to bite[6].
Smear was positive in most of the patient[10]. Those with a negative smear, had infection for a longer period (12 out 16 patients had lesions for more than 7 months) and all of these patients showed predominantly lymphocytes in their smear indicating development of 1-cell immunity[11].
The geographical distribution showed the highest focus of infection is prevalent in the interior walled city. This part of the city is heavily populated and highly congested with old buildings, dark niches and cracks in the ground providing suitable habitat for the sandflies[6]. ln contrast to the previous study[6], cases were also encountered outside the old city, scattered throughout the remaining city. Probably this can be due to the shifting of the people from the interior city of the new colonies and thus importing the disease in these areas. Furthermore other reservoirs eg dogs, could also be resposible for the spread. However further epidemiological studies are required to implicate the vector and the reservoir host in the spread of the infection in Multan area.

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