

CUTANEOUS LEISHMANIASIS IN N.W.F.P

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ABSTRACT

Objective: To know the frequency of cutaneous leishmaniasis in patients admitted in dermatology department, Lady Reading Hospital Peshawar.

Material and Methods: This study was conducted at department of Dermatology, Postgraduate Medical Institute, Lady Reading Hospital Peshawar from January 2002 to 31st May 2002. Criteria for admission was multiple and ugly non-healing ulcers. This study does not include those cases seen in outpatients department. Patients diagnosed as cutaneous leishmaniasis were analyzed.

Results: During the study period, 306 patients were admitted in Dermatology unit Lady Reading Hospital, Peshawar. This included 167 male patients and 139 female patients. Out of 167 male patients, 16 patients were confirmed cases of Cutaneous Leishmaniasis making 9.6% of total male admissions. Out of these 16 patients, 6 patients belonged to the urban population of N.W.F.P and 10 patients belonged to the rural/ border areas of N.W.F.P. So urban to rural ratio of frequency in males is 37.5% to 62.5% respectively. Out of 139 female admitted patients 6 patients were confirmed cases of Cutaneous Leishmaniasis making it 4.3% of total female admissions. Among these female patients 2 patients belonged to urban population while 4 patients belonged to border/rural areas of N.W.F.P. Urban to rural frequency in females is 33.3% to 66.6% respectively.

Conclusion: We conclude that Cutaneous Leishmaniasis is an emerging health problem of our country and immediate steps need to be taken for its control.

Key words: Leishmaniasis, Cutaneous.

INTRODUCTION

Cutaneous Leishmaniasis (CL), Delhi boil, Baghdad sore, Sal Dana (Persian meaning Sal=year and Dana =Abscess) is caused by various species of Leishmania: *Leishmania Tropica*¹⁻². This parasite is transmitted by bite of *Phlebotomus* sandfly. In intravenous drug users Leishmaniasis can be transmitted directly from person to person³. There is a nodular lesion at the site of bite. This nodule comprises of parasite-laden macrophages surrounded by lymphocytes which try to restrict spread of these organisms. This is a self-limiting disease but it may take many months before complete healing with scar formation occurs. Usually life long cell mediated Immunity is the ultimate response. Reservoirs for infection are various animals such as domestic dogs, cattle, horses, donkeys and rodents. This disease is diagnosed by direct microscopic examination of a Giemsa stained smear from the lesion. In endemic areas, the appearance of a non healing ulcer or ulcers, without any further tests warrants treatment. The protective efficacy of vaccine against CL is 72.9%⁴. Immunity against *Leishmania* Major requires rapid induction of a type 1

response in which tumour necrosis factor alpha (TNF-alpha) plays an essential role⁵.

The major control measures include increased awareness, enhanced surveillance and improved reporting⁶. This study was conducted to know the frequency of cutaneous leishmaniasis in patients admitted in dermatology department, Lady Reading Hospital Peshawar.

MATERIAL AND METHODS

This study was conducted at Lady Reading Hospital Peshawar from January 1st 2002 to 31st May 2002. Lady Reading Hospital is the biggest teaching hospital of NWFP providing healthcare to people of this province as well as Afghan refugees. Totals of 22 patients were admitted to Dermatology unit with longstanding history of non-healing ulcers, which were either multiple or not responding to anti *Leishmania* treatment. This study did not include those CL cases treated in OPD. These patients were divided into three age groups, <15yrs, 15 to 45yrs and >45yrs. Apart from routine investigations skin smears were taken as well as Skin biopsies in some cases. Photographs were also taken with a still camera.

NUMBER OF ADMISSIONS FOR THE PERIOD OF STUDY AND FREQUENCY OF PATIENTS WITH CUTANEOUS LEISHMANIASIS (C. L)

Sex	Total Admissions	Number of Patients with C.L	%age of Admissions
Male	167	16	9.6%
Female	139	6	4.3%
TOTAL	306	22	7.2%

Table 1

RESULTS

During the study period, 306 patients (167 male & 139 female), were admitted in dermatology unit. Out of these, 22 cases were diagnosed as cutaneous leishmaniasis. Out of 22 admitted patients 16 patients were male (72.7%) and 6 patients (27.3%) were female. So male to female ratio was 2.7:1. Age group most commonly affected among male patients was 15 to 45 years(12 cases) and 45 years&above(2 cases) with 2 cases under 15 years of age. Among female patients 3 cases were under 15years of age and one was 15 years old while two patients were above the age of 45 years. Out of these 22 patients 16 were Afghan Refugees and 6 patients were Pakistanis.

DISCUSSION

Leishmaniasis has been discovered more than 100 years back but has not been eradicated since then. The incidence of this disease is on a rise in many parts of the world. Without urgent control measures it might become a major health problem worldwide.

Cutaneous Leishmaniasis is common in those areas of our country which are near to Afghan border such as various towns and villages of Baluchistan Province,⁷ Kurram and Mohmand Agencies of NWFP and North Waziristan,interior Sind and Multan^{8,9}.This could be because of frequent and easy traveling of Afghanis through these areas and their living in these areas. This

does not mean that urban areas are safe as in our study 40% of our patients belonged to urban population. It is also endemic in Kuwait ,Iraq, other Middle East countries all around Mediterranean coast¹⁰.

Cutaneous Leishmaniasis appears to be a rapidly emerging health problem in parts of North East Afghanistan and North West Pakistan, An Afghan Refugee camp in Taimargara experienced a major outbreak for the first time in 1997.Around 38% of 9200 inhabitants bore active lesions and a further 13% had scars from earlier attacks¹¹. Now the incidence of CL is on a rise in local Pakistani population as well and the reason for this surge might be the free transit of Afghan refugees across the border, as CL is very common in Afghanistan¹².

Contigo et al in 2002 reported an outbreak of Cut. Leishmaniasis in the Rio Jequitinhonha Valley, Minas Gerais, Brazil. The observed 72 patients with active lesions over period of two years. They attributed the outbreak to precarious sanitary conditions, low educational level and low socioeconomic level¹³. The same applies to our people. Rab et al in 1986 observed an overall prevalence of active lesions of CL of 1.1% in school children 5-15 years of age of Uthal, South Baluchistan¹⁴. In Southern Jordan an outbreak of Zoonotic CL affected a battalion of 80 soldiers, during which 45% of the soldiers showed clinical disease, the lesions, were mostly on the face and extremities¹⁵.

URBAN TO RURAL FREQUENCY

Sex of Patients	Total Admissions	Urban	Rural	Urban to Rural Ratio
Male	16	6	10	1:1.7
Female	6	2	4	1:2
TOTAL	22	8	14	1:1.75

Table 2

AGE RELATED FREQUENCY

Sex	Under 15 years	15-45 years	Above 45 years
Male	2	12	2
Female	3	3	0

Table 3

According to WHO. cutaneous Leishmaniasis is endemic in 88 countries of the world with over 350 million people at risk. Over 12 million people are affected worldwide. CL is endemic in many countries of the world.

Leishmaniasis has been discovered 100 years back but has not been eradicated; rather it is on a rise in many parts of the world. If control measures are not taken it might become a major health problem¹⁶.

In our study the age groups affected mostly were 15 to 45 years of age. This is to be expected because people in this age group are responsible for earning livelihood for their families and they have to travel far and wide for this purpose.

CONCLUSION

This study shows that cutaneous leishmaniasis is emerging as a major health problem in our country and if immediate steps are not taken regarding public awareness and immediate effective treatment, it might become our major health problem.

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