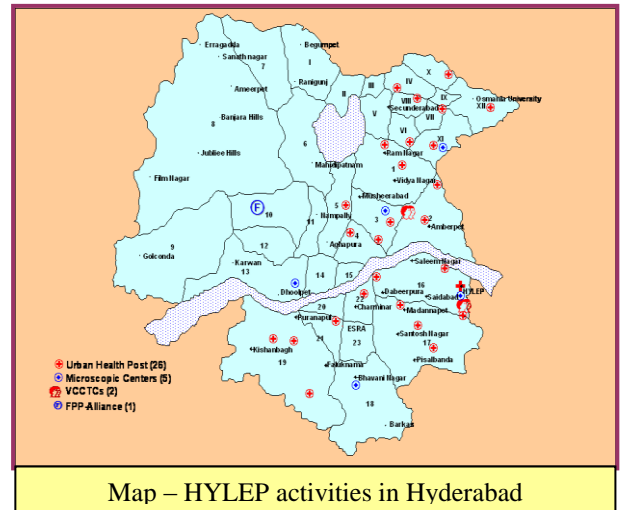


# Retrospective Analysis of ENL cases treated in the Urban Leprosy Project at Hyderabad

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## INTRODUCTION

The Hyderabad Leprosy Eradication Project [HYLEP] was the first directly implemented project of LEPROA Society established in the year 1989, covering a population of five lakhs. It now covers a population 21.7 lakhs, i.e. two thirds of the city. The prevalence rate at the start of the project was 14.2/10,000 population and by 2007 it came down to 0.27/10,000.



## OBJECTIVES:

- To study the trend of ENL reactions in leprosy over a period of 15 years [1990- 2004].
- To study the role of gender and age in ENL reactions
- The time of occurrence and recurrence of ENL reactions
- To assess the Bacteriological Index in ENL reactions

## MATERIALS AND METHODS:

**Study population:** 13,406 leprosy cases registered during 1990-2004 among the project population of 21, 79,540

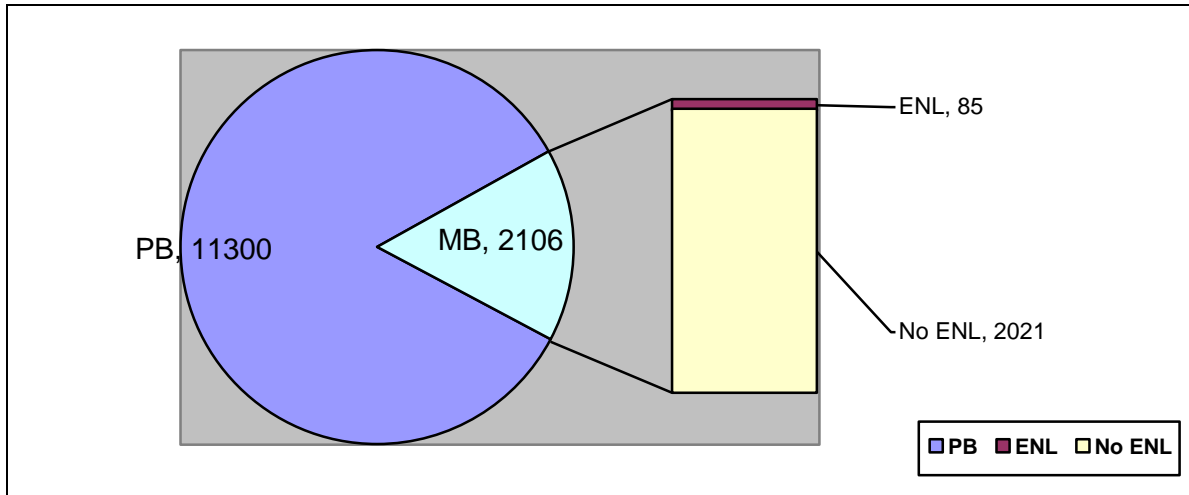
**Methodology:** From the patient records the data on age, gender, onset of reactions, BI status was noted for detailed analysis.

All the MB cases were followed up for five years; follow up consisted of clinical examination once in three months and bacterial examination once in a year. The detailed examination including nerve function assessment was done.

**FINDINGS:**

Out of 13406 treated for leprosy 2106 [15.7%] were classified as Multi Bacillary [MB]. Among them 85 [4%] developed ENL reactions. (Type II Reactions). The ENL was treated with standardized regimen using prednisolone and Clofazimine.

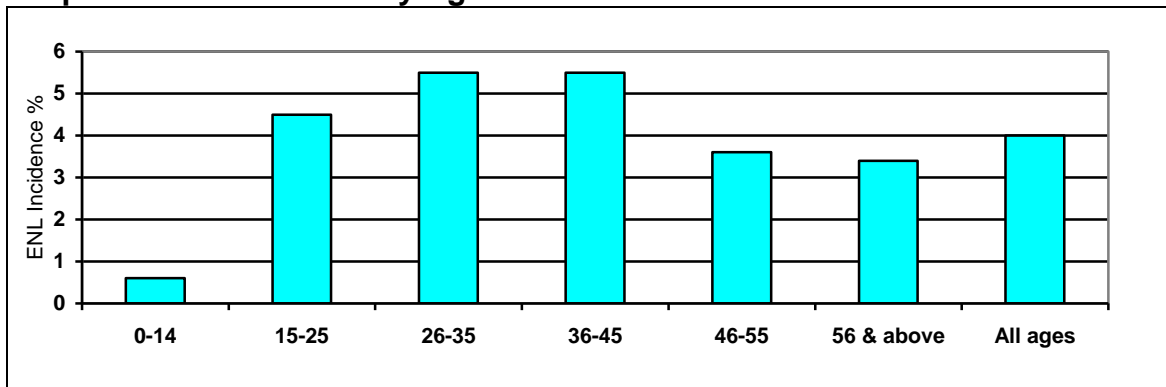
**Graph- 1: ENL among 13406 leprosy cases registered during 1990-2004**



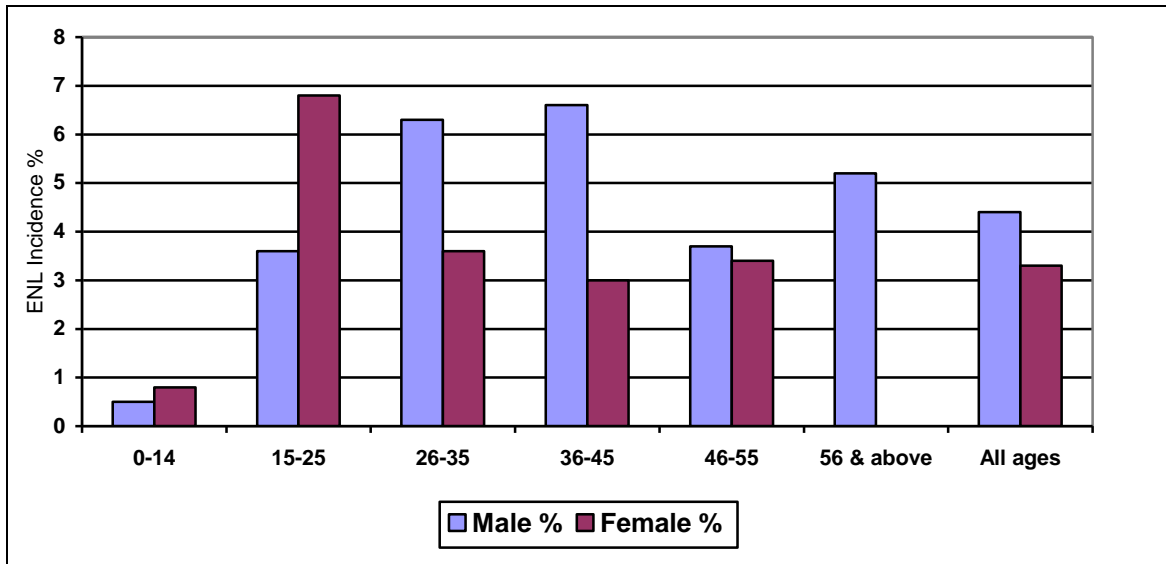
**Table-1: Demographic profile**

Age in years	MB cases			ENL cases					
	Male	Female	Total	Male		Female		Total	
				n	%	n	%	n	%
0-14	202	130	332	1	0.5	1	0.8	2	0.6
15-25	390	162	552	14	3.6	11	6.8	25	4.5
26-35	303	137	440	19	6.3	5	3.6	24	5.5
36-45	226	99	325	15	6.6	3	3.0	18	5.5
46-55	135	87	222	5	3.7	3	3.4	8	3.6
56 & above	155	80	235	8	5.2	0	0.0	8	3.4
<b>Total</b>	<b>1411</b>	<b>695</b>	<b>2106</b>	<b>62</b>	<b>4.4</b>	<b>23</b>	<b>3.3</b>	<b>85</b>	<b>4.0</b>

**Graph-2: ENL Incidence by Age**

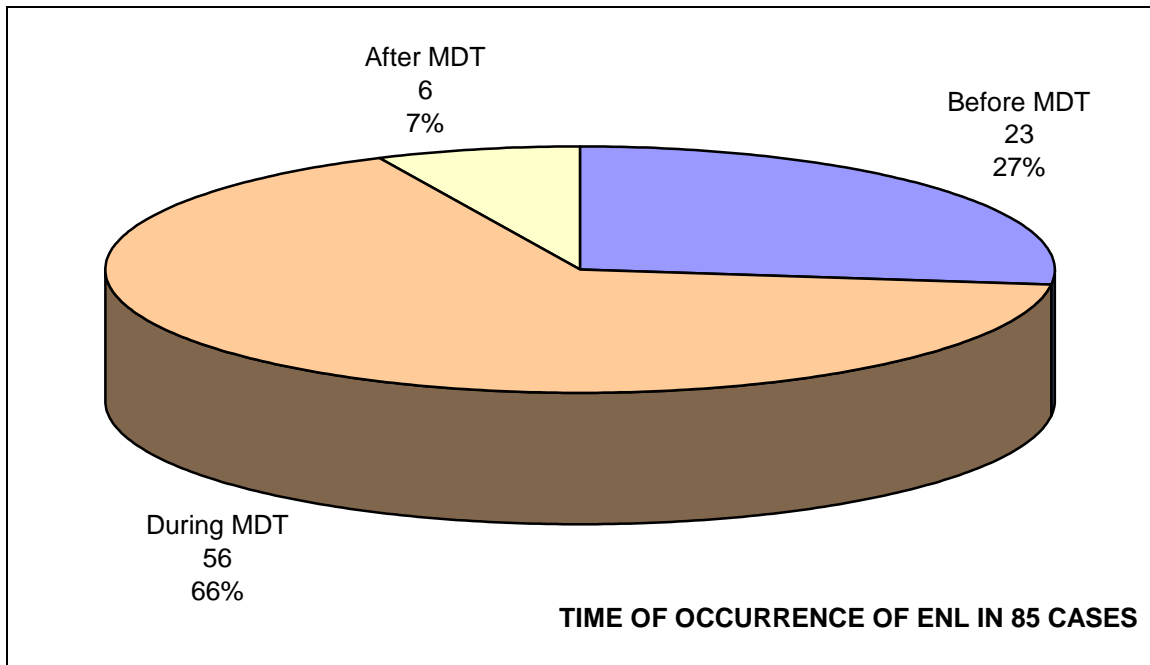


**Graph-3: ENL Incidence by Gender and age**



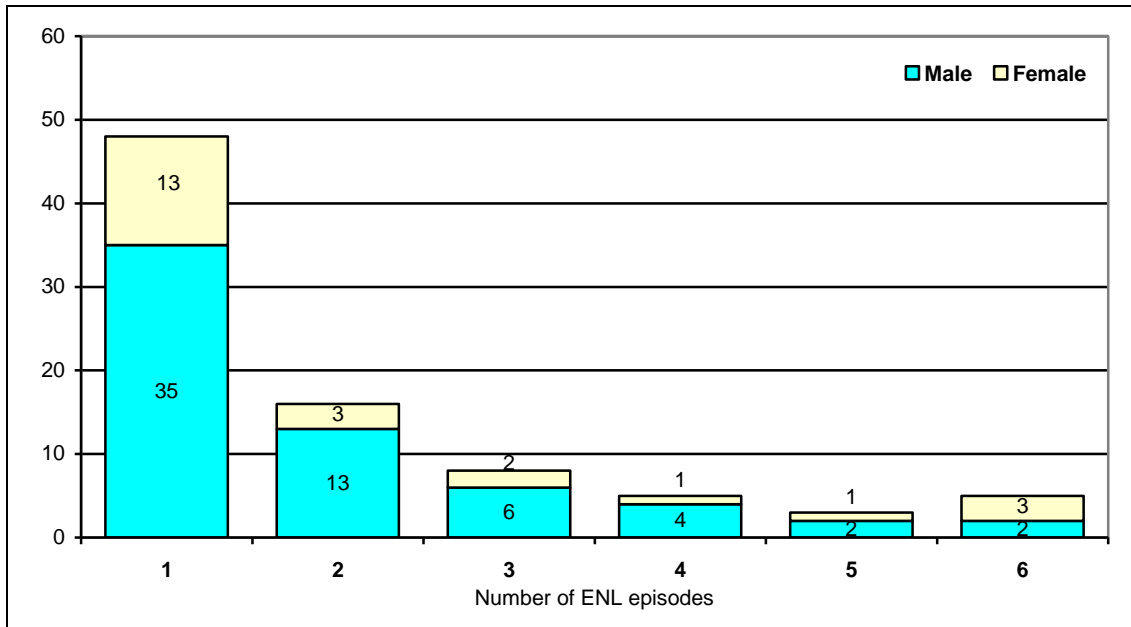
In the females incidence of ENL is 6.8% in the age group-15-25 years, where as this is high in males of the age group between 26-45 years.

**Graph-4: Time of occurrence of ENL in 85 cases**



ENL diagnosis –23 patients came with ENL reaction on their first visit (at the time of diagnosis), 56 patients had ENL reaction during MDT and 6 patients had ENL reactions after the completion of MDT during the follow up examinations.

**Graph-5: Number of ENL episodes in 85 cases by gender**

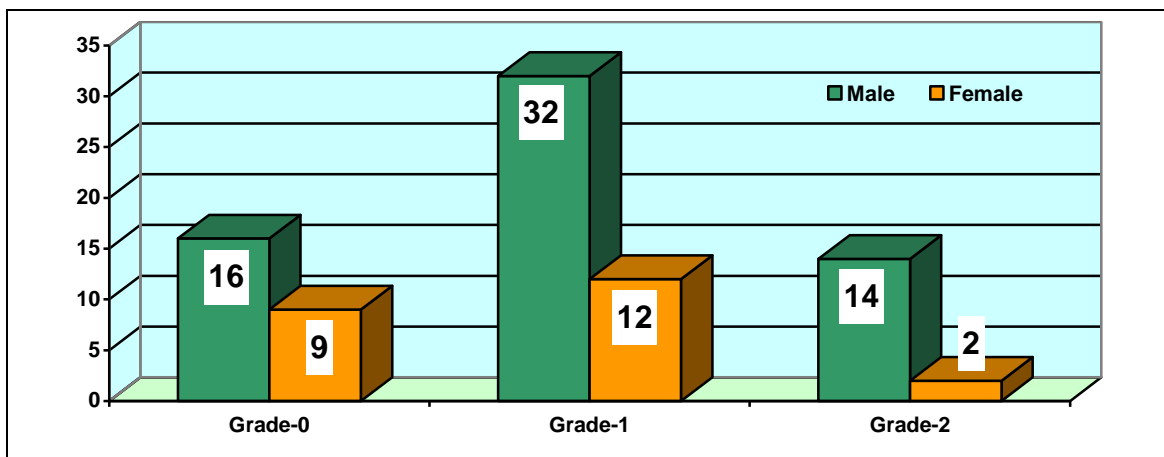


ENL re-occurrence – Among 85 patients having ENL reaction majority (48) patients had only one episode, whereas the highest of six episodes occurred in 5 patients.

**Table 2 :Deformity of 2106 cases and compare**

Deformity	MB Cases					ENL cases				
	M	F	M.C	F.C	To	M	F	M.C	F.C	To
Grade -0	502	260	159	104	1025	15	8	1	1	25
Grade- I	373	163	21	16	573	32	12	-	-	44
Grade – II	334	142	22	10	508	14	2	-	-	16
Total	1209	565	202	130	2106	61	22	1	1	85

**Graph-6: Disability Grades in 85 ENL cases**

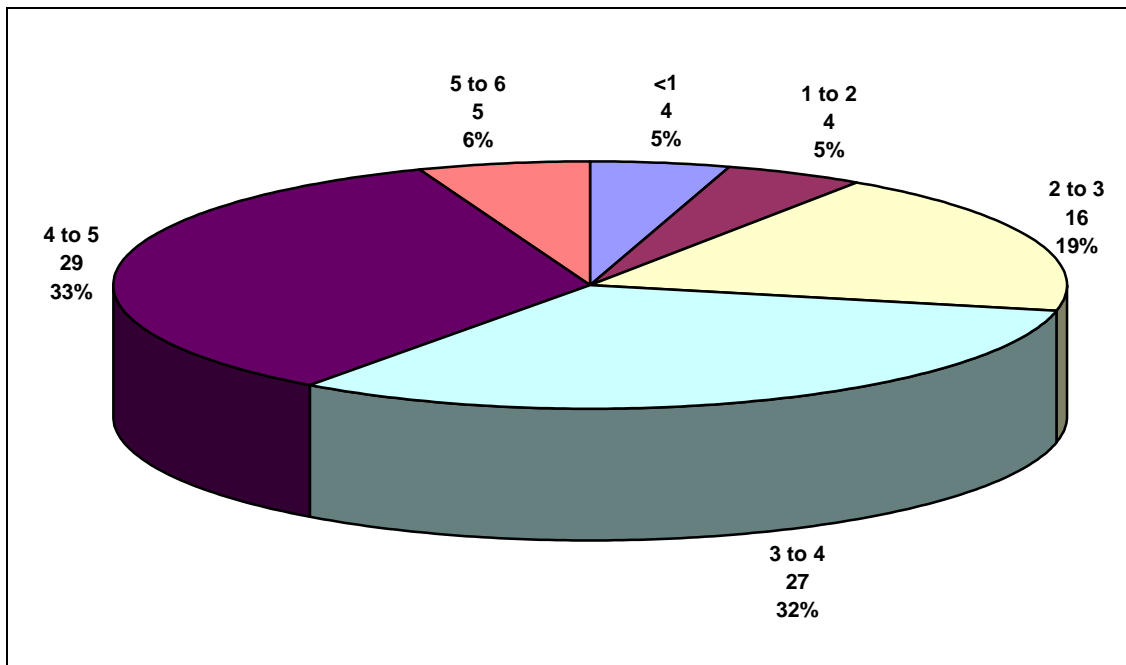


The graph depicts that maximum number of 44 (Male 32, Female – 12) persons with grade I deformity had ENL reaction.

**Table – 3: Positivity of Total MB cases (2106) at time of daignosis**

Status	Male	Female	MChild	Fchild	Total
Positive	446	135	36	14	631
Negative	642	359	137	87	1225
Smear not done	121	71	29	29	250
Total	1209	565	202	130	2106

**Graph-7: BI status in 85 ENL Cases**



The pie-diagram shows more number of (61 cases) ENL cases having BI more than three

## RECOMMENDATIONS

- Surveillance is important, following the NLEP guidelines five years for MB cases.
- The follow ups should include clinical examination once in three months both for observations of symptoms and nerve function assessment.
- Counseling is mandatory to all cases and their family members.

## ACKNOWLEDGEMENTS

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