EPIDEMIOLOGICAL PROFILE OF LEPROSY PATIENT AND ITS CO-RELATION WITH THEIR TREATMENT COMPLIANCE IN RURAL AREA OF KANPUR

Anurag Srivastava*, J.P.Srivastava, S.C. Saxena***, V.K.Srivastava**** , Seema Nigam*****

Resident*, Professor & Head** , Professor*** , Associate professor****, Assistant professor*****

Department of Community Medicine, G.S.V.M. Medical College, Kanpur

Abstract :

Research question: *To study the epidemiological profile of Leprosy patients in rural area of Kanpur. To study correlation of epidemiological profile with their treatment compliance*

Study design : *Cross sectional study*

Setting : *Rural area of Kanpur (Chaubaypur, PHC)*

Participants : *All registered patients at Chaubaypur PHC for taking MDT.*

Study period : *One year (Oct, 2003 to October 2004)*

Statistical Analysis : *Chi-square test, percentage*

Result : *From total 63 registered cases, 55.56% were MB and 44.44% were PB cases. Maximum prevalence was found in age group of31- 45 (34.92%), Maximum non-compliant patients were from labour class. Absolute illiterate patients showed Maximum non-compliance (39.68%). Maximum registered case were from social class IV (46. 03%).*

Introduction :

Leprosy is often called a social disease. It not only affects the body of patients, but also makes the life of the patients miserable and patients of this disease are quite often deprived of their human rights. Leprosy is still widely prevalent in India and India occupies the first place in the list of 6 highly endemic countries world wide[1]. Although the disease is present throughout the country, the distribution is uneven. The advantage of introduction of MDT is that it is highly effective in curing disease, reduces the period of treatment is well accepted by the patient, easy to apply in the field conditions, prevents development of drug resistance, interrupts transmission of infection, reduces risk of relapse, prevents disability and improves community attitude.[2] MDT is effective even in unfavourable conditions and limited infrastrucure and resources for health services, as in India. Despite a well conceived programme and effectiveness of MDT, there are a fair number of patients turned into

defaulters, which is causing a rough patch in the success story of programme. This situation calls for detailed understanding of various factors responsible for drug default.

Therefore, the present study has been planned to study the epidemiological profile of registered leposy patients and its correlation with their compliance.

Material and Methods :

This study was carried out from October 2003 to October, 2004. All registered leprosy patients taking MDT at PHC Chaubeypur were taken as participants. All such registered cases were interviewed personally and information obtained was recorded on pre-designed and pre-tested proforma. Attempts were made to interview these patients at the centres on due dates when they come to collect their medicine. Defaulters, if any, were traced at their personal address for data collection.

Information obtained was analysed to meet out the requirements of various objectives of the study.

Observation and Discussion :

TABLE- I

Distribution of patients according to sex and type of Disease and its association with the compliance of clinic attendance :

Type	Compliant			Non-compliant			G.T.
	Male	Female	Total	Male	Female	Total	Grand Total
MB	17	9	26	5	4	9	35
	(48.57%)	(25.71%)	(74.28%)	(14.29%)	(11.43%)		(55.56%)
PB	9	8	17	7	4	11	28
	(32.14)	(28.57)	(60.17)	(25.0)	(14.29)		(44.44)
Total	**26**	**17**	**43**	**12**	**8**	**20**	**63**
	(41.27)	**(26.99)**		**(19.05**	**(12.7)**		**(100)**

Table-1 Shows that 55.56% patients were MB cases and PB case were 44.44% But MB cases here more compliant 74.28% than PB cases 60.71%. Out of the total leprosy cases, 60.32% were male, (41.27% Compliant and 19.05% non-complaint) and 39.68% were female (26.99% compliant and 12.7% non-compliant).

TABLE - II

Distribution of patients according to age, sex and its association with the compliance of clinic attendance

Type	Compliant			Non-compliant			G.T.
	Male	Female	Total	Male	Female	Total	Grand Total
0-15	3	2	5	0	1	1	6
	(50.0)	(33.33)	(83.33)	(16.7)	(16.7)		(9.52)
16-30	8	6	14	1	-	1	15
	(53.33)	(40.0)	(93.33)	(6.67)	-	(6.7)	(23.81)
31-45	10	6	17	4	1	5	22
	(45.45)	(27.27)	(77.27)	(18.18)	(4.55)	(22.72)	(34.92)
46-60	3	2	5	4	5	9	14
	(21.4)	(14.29)	(35.69)	(28.57)	(35.71)	64.28)	(22.22)
>60	1	1	2	3	1	4	6
	(16.7)	(16.7)	(33.4)	(50.0)	(18.6)	(66.6)	(9.52)
Total	**26**	**17**	**43**	**12**	**8**	**20**	**63**

(Figure in parenthesis indicates percentage)

Table-II : Shows that majority of patients were of age group of 31-45 yrs (34.92%). But maximum non-compliant were found in age group >60 (66.67%). Least non-compliance was found in age group 16-30 yrs (6.7%). In that age group, 100% female were compliant. Ali (1964)[3], Verma et al (1967)[4], Guha et al (1981)[5], Sehgal et al (1982)[6] and Reddy et al (1986)[7] have reported that onset of leprosy is maximum between 20-29 yrs of age. In the present study the results are somewhat different. This may be because of delayed registration of patients at Drug Distribution Centre.

TABLE - III

Distribution of patients according to occupation, sex and association with compliance of their clinic attendance

Occupation	Compliant			Non-compliant			G.T.
	Male	Female	Total	Male	Female	Total	Grand Total
Labourer	9 (50)	3 (16.67)	12 (66.67)	4 (22.22)	2 (11.11)	6 (33.33)	18 (28.57)
Agriculture	3 (60.0)	1 (20.0)	4 (80.0)	1 (20.0)	-	1 (20.0)	5 (7.94)
Business	0	0	0	0	0	0	0
Employed (lower class)	2 (100.0)	0	2 (100.0)	0	0	0	2 (3.17)
Employed (higher class)	0	0	0	0	0	0	0
Skilled	5 (62.5)	0	5 (62.5)	3 (37.5)	0	3 (37.5)	8 (12.7)
Unemployed	2 (33.33)	0	2 (33.33)	4 (66.67)	0	4 (66.67)	6 (9.52)
Student	5 (71.43)	2 (28.57)	7 (100.0)	0	0	0	7 (11.11)
Others	0	11 HW (67.7)	11 (67.7)	0	6 (HW) (67.7)	6 (32.3)	17 (26.98)
Total	**26**	**17**	**43**	**12**	**8**	**20**	**63**

(Figure in parenthesis indicates percentage)

Table III : Shows that most of the registered cases were Labourers (28.57%) and Housewives (26.98%) Students and employed (Lower class) showed 100% compliance. Least compliance was in unemployed patients. Maximum female registered cases were Housewives and maximum males were labourers. Since leprosy is a contact disease, so it will be reasonably higher in household contact. Rao PSS et al (1973)[8] in his study found that household contact in leprosy patients had a higher risk of developing leprosy as compared to non-contacts.

TABLE-IV

Distribution of patients according to educational status, sex and its association with compliance of their clinic attendance

Education	Compliant			Non-compliant			G.T.
al status	Male	Female	Total	Male	Female	Total	Grand Total
Absolute illiterate	6 (24.0)	8 (32.0)	14 (56.0)	6 (24.0)	5 (20.0)	11 (44.0)	25 (39.68)
Can read	5 (38.46)	4 (30.77)	9 (69.23)	3 (23.08)	1 (7.69)	4 (30.77)	13 (20.63)
Can read & write	3 (60.0)	1 (20.0)	4 (80.0)	1 (20.0)	0	1 (20.0)	5 (7.93)
Primary	5 (71.43)	0	5 (71.43)	1 (14.29)	1 (14.29)	2 (28.57)	7 (11.11)
Middle	3 (42.86)	3 (42.86)	6 (85.71)	0	1 (14.29)	1 (14.29)	7 (11.11)
Secondary	0	1 (100.0)	1 (100.0	0	0	0	1 (1.59)
Higher Secondary	2 (66.67)	0	2 (66.67)	1 (33.33)	0	1 (33.33)	3 (4.76)
Graduate	2 (100.0)	0	2 (100.0)	0	0	0	2 (3.17)
Post graduate	0	0	0	0	0	0	0
Total	**26**	**17**	**43**	**12**	**8**	**20**	**63**

Table IV : Shows that maximum number of leprosy cases were absolute illiterate (39.68%). Of these 56.0% were compliant and 44.0% were non-compliant. Maximum compliance was found in secondary and graduate class educated patients (100%). Maximum non-compliance was found in Absolute illiterate patients (44.0%) Robert C Hastings (1985)[9] has also mentioned in his text book of 'Medicines in Tropics' about the role of educational status in leprosy.

TABLE-V

Distribution of patients according to social class, sex and its association with compliance of their clinic attendance (B.G. Prasad social classification)

Social	Compliant			Non-compliant			G.T.
class	Male	Female	Total	Male	Female	Total	Grand Total
I	0	0	0	0	0	0	0
II	3 (50.0)	2 (13.33)	5 (83.33)	1 (16.67)	0	1 (16.67)	6 (9.52)
III	6 (46.15)	4 (30.77)	10 (76.92)	1 (7.69)	2 (15.38)	3 (23.08)	13 (20.63
IV	13 (44.83	9 (31.03	22 (75.86)	6 (20.69)	1 (3.45)	7 (24.14)	29 (46.03)
V	4 (26.67)	2 (13.33)	6 (40.0)	4 (26.67)	5 (33.33)	9 (60.0)	15 (23.81)
Total	**26**	**17**	**43**	**12**	**8**	**20**	**63**

(figure in parenthesis indicates percentage)

Table V : Shows that maximum number of registered leprosy patients were of social class IV (46.03%) and no patient was of class I. Max compliance was found in Class II patients (83.33%) and least was in class V (40.0%). In class IV, female patients were more compliant than male patients.

Conclusion and Recommendation :

Thus according to findings of present study, it is clear that leprosy is still a problem of lower socio-economic groups and illiterate people So together with MDT coverage, it is important that awareness about disease and proper knowledge of MDT must be developed within that social class and this is possible only by the means of health education. To improve patient compliance, the recommendation of accompanied MDT should be followed. This will decrease number of defaulters and irregular patients at centre.

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