

A Retrospective Hospital Based Survey of Leprosy Patients In Public-Private Hospitals of Ahmedabad City.

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Abstract :

Introduction : Leprosy is a disease of public health concern mainly because of its potential to cause disability in a small proportion of those affected and is a cause for social stigma and discrimination. It is essential to identify all the Leprosy cases, confirm diagnosis and register them promptly for treatment with multi drug therapy (MDT). It is possible only if good quality services are provided. **Methodology :** A retrospective analytical study was conducted in government and private hospitals of Ahmedabad city. Total 7 hospitals were selected from various zones of the city. Leprosy cases of last 3 years were analysed. **Results :** Total 353 cases were reported from the selected hospitals. There were 324(91.78%) cases of multi-bacillary (MB) leprosy and 29(8.22%) cases of pauci-bacillary (PB) leprosy in government hospitals. 234(66.28%) patients were male and 119(33.72%) patients were female in our study. Not a single case was reported from private hospitals. **Conclusion :** There is a declining trend of disease in our country, however our study shows increase in cases of leprosy in 2010-11 and all the patients had MDT.

Key words : Leprosy, Public-private hospitals, Demographic Distribution, Grade-2 deformities.

Introduction :

Leprosy (Hansen's disease) is a chronic infectious disease caused by Mycobacterium Leprae. 'Sushrutasamhitha' mentioned it in 1600 B.C. as arun kusht¹. The disease is riddled with so many myths and carries grave social stigma. Mycobacterium Leprae was the first bacterium to be identified as causing disease in man. It is least infectious out of the communicable diseases². It mainly affects the skin, peripheral nerves, respiratory mucosa, lymph nodes and bones. All systems and organs can be involved in leprosy. Leprosy is transmitted via droplet infection or skin lesions³. Leprosy, with long incubation period between 9 months to 20 years after infection can affect all age groups. The signs and symptoms may vary between PB to MB depending upon the degree of patient's immunity to M. Leprae, the causative agent. In 1983 the National leprosy Eradication programme with the goal of eradication of leprosy was launched. The aim was to reduce case load to less than 1 per 10,000 population. Today, the stigma and prejudice against leprosy have

reduced considerably due to National leprosy elimination programme. National Health Policy-2002 set the goal of elimination of leprosy by the year 2005³. We have achieved goal of elimination of leprosy 0.95/10,000 population in December 2005⁴. Leprosy has been eliminated from 119 of 122 countries where the disease was considered as a public health problem. To know the present scenario in private and government hospitals and to know the trend of the disease we perform a survey in public-private hospitals in Ahmedabad city.

Methodology :

Study design: Retrospective analytical study.

Study area: The hospitals of different zones of Ahmedabad: Civil hospital Asarwa, Ahmedabad; Civil hospital Sola and V.S hospital, Ahmedabad; L.G. hospital Maninagar and UHC Shahpur, Ahmedabad; Medisurge Hospital and Jivraj Mehta Hospital, Ahmedabad.

Study duration: May 2011 to June 2011 (1 month).

Data collection: A pre-design semi structured questionnaire was used to collect the data. Information was obtained from the record section, leprosy clinics and the leprosy superintendent of the Ahmedabad city. Leprosy cases recorded in last 3 years were noted (March 08-April 11). Information was collected on parameters like socio-demographic factors, clinical types and deformity assessment.

Statistical analysis: The data was analysed in Epi-info (version 7) and Microsoft Excel.

Results :

Table I : Year wise distribution of cases in Private, Trust and Government Hospitals of Ahmedabad.

| Hospitals(Zone) | No. of cases | | | |
|-----------------------|--------------|---------|---------|-------|
| | 2008-09 | 2009-10 | 2010-11 | Total |
| V.S.Hospital (West) | 23 | 42 | 51 | 116 |
| LG (South) | 21 | NA | 47 | 68 |
| Civil (North) | NA | 26 | 97 | 123 |
| Sola Civil (West) | 12 | 18 | 10 | 40 |
| Shahpur UHC (Central) | 4 | 2 | NA | 6 |
| Jivraj Mehta (West) | NA | NA | NA | NA |
| Medisurge (West) | NA | NA | NA | NA |
| Total | 60 | 88 | 205 | 353 |

Table I show that majority of cases were reported by government and corporation hospital while not a single case was reported by private hospitals.

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Table II : Distribution of cases according to age, sex and leprosy type.

| Year | Group | Hospitals | | | | | Total |
|---------|--------|-----------|-----------|------------|---------|-------------------|-------------|
| | | V.S.(AMC) | New Civil | Sola Civil | LG(AMC) | Shahpur UHC(Corp) | |
| 2008-09 | | | | | | | |
| Age | Child | 1 | NA | 0 | 21 | 0 | 22(36.66%) |
| | Adult | 22 | NA | 12 | 0 | 4 | 38(63.34%) |
| Sex | Male | 17 | NA | 8 | 12 | 3 | 40(66.67%) |
| | Female | 6 | NA | 4 | 9 | 1 | 20(33.33%) |
| Type | PB | 0 | NA | 2 | 6 | 0 | 8(13.33%) |
| | MB | 23 | NA | 10 | 15 | 4 | 52(86.67%) |
| | Total | | | | | | 60(100%) |
| 2009-10 | | | | | | | |
| Age | Child | 1 | 1 | 1 | NA | 0 | 3(3.41%) |
| | Adult | 41 | 25 | 17 | NA | 2 | 85(96.59%) |
| Sex | Male | 29 | 19 | 15 | NA | 1 | 64(72.72%) |
| | Female | 13 | 7 | 3 | NA | 1 | 24(27.27%) |
| Type | PB | 2 | 0 | 6 | NA | 0 | 8(9.09%) |
| | MB | 40 | 26 | 12 | NA | 2 | 80(90.91%) |
| | Total | | | | | | 88(100%) |
| 2010-11 | | | | | | | |
| Age | Child | 3 | 10 | 0 | 5 | NA | 18(8.78%) |
| | Adult | 48 | 87 | 10 | 42 | NA | 187(91.21%) |
| Sex | Male | 31 | 62 | 7 | 30 | NA | 130(63.41%) |
| | Female | 20 | 35 | 3 | 17 | NA | 75(36.58%) |
| Type | PB | 0 | 6 | 1 | 6 | NA | 13(6.34%) |
| | MB | 51 | 91 | 9 | 41 | NA | 192(93.65%) |
| | Total | | | | | | 205(100%) |

Table II shows increasing trend of the leprosy cases. Males are more affected than females. The incidence of cases of MB (91.78%) leprosy was higher than the incidence of cases of PB (8.22%) leprosy.

Table III : Year wise distribution of Cases with grade-2 deformities.

| Year | 2008-09 | 2009-10 | 2010-11 |
|-------------------|----------|-------------|------------|
| Visible Deformity | 3(5%) | 1(1.13%) | 0 |
| No Deformity | 57(95%) | 87 (98.87%) | 205 (100%) |
| Total | 60(100%) | 88(100%) | 205(100%) |

Table III shows maximum visible deformity (5%) was reported in 2008-09. Table also reveals that the incidence of visible deformity was subsequently decreased in the year 2009-10 (1.13%) and 2010-11 (0).

Table IV : Age, Sex and Area wise distribution of New Leprosy Cases reported in New Civil Hospital Asarwa, Ahmedabad 2011.

| Age | Urban | | Rural | | Total | | Total (%) |
|-------|-------|--------|-------|--------|-------|--------|-------------|
| | Male | Female | Male | Female | Male | Female | |
| 1-14 | 03 | 01 | 01 | 00 | 04 | 01 | 05 (4.92) |
| 15-29 | 17 | 05 | 05 | 02 | 22 | 07 | 29 (26.76) |
| 30-44 | 07 | 07 | 03 | 02 | 10 | 09 | 19 (23.23) |
| 45-59 | 15 | 05 | 04 | 03 | 19 | 08 | 27 (30.98) |
| 60+ | 09 | 01 | 06 | 01 | 15 | 02 | 17 (14.09) |
| All | 51 | 19 | 19 | 08 | 70 | 27 | 97 (100.00) |

Table IV shows that the incidence of leprosy case was higher amongst the males in the age group of 45-59 years from urban areas (15.46%). The incidence of leprosy cases (72.16%) reported from urban areas was much higher than the incidence of leprosy cases (27.83%) reported from rural areas.

Discussion :

We surveyed in various government and private hospitals from May 2011 to June 2011. New cases of leprosy recorded in those hospitals were noted. No cases were reported by Jivraj Mehta and Medisurge Hospitals. Also data available from other hospitals was limited. In our country total of 1.27 lakh new cases were detected during the year 2011-12⁵. Although elimination of leprosy has been achieved, new cases continued to occur for some more years. It was seen that initially the Annual New Case Detection Rate (ANCDR) showed a significant fall⁶. However, subsequent to 2005, it has more or less remained at the same level. The increasing trend in leprosy cases may be due to increased awareness in the community regarding the disease and its transmission. As a result of more stringent active surveillance and involvement of leprosy supervisors and health workers case detection rate has increased. Private hospitals also send regular reports of leprosy cases. Our study shows visible disability among the leprosy patients was on the decline. It may be due to early case detection and timely treatment given under NLEP. Reduce deformity rate was also reported by Halder et al in their study⁷. The cases of leprosy are declining every year in India. More and more patients are completing the MDT and are released from the treatment. But in this study there was a rise in leprosy cases in 2010-11. That may be probably due to better surveillance activities, distribution of multidrug therapy, deformity prevention and management performed by leprosy workers during the NLEP phase.

Conclusion :

Government, NGOs and private practitioners need to work together in a coordinated fashion in the final battle against leprosy in elimination. Constant vigilance is required to see that the disease does not reappear in the community. Specialized focus on early diagnosis, complete treatment and detection and management of disabilities is still required to keep a check on leprosy.

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