

Editorial

Elimination of leprosy & possibility of eradication – the Indian scenario

Over several centuries, leprosy had remained a dreaded, incurable disease. Patients were viewed with abhorrence, ostracized and subjected to inhuman treatment. Today, the stigma and prejudice against leprosy have reduced considerably, and the ravages of the disease are rarely seen in the community. This has been possible due to the availability of effective drugs to cure the disease, access to technology for early diagnosis, prevention and repair of deformities, as well as increased awareness in society about leprosy. At a public health level, this has led to effective control of transmission and spread of disease. We have successfully achieved elimination, and are now moving towards eradication of leprosy.

The first attempt to deal with leprosy as a public health problem was taken up in 1952 by the Gandhi Memorial Leprosy Foundation (GMLF), an institution started under the Gandhi Memorial Trust. At that time, the only method to deal with the disease was to isolate leprosy patients in Leprosy “Homes” or “Asylums”. Such places were very few and inadequate. Dapsone was a new drug that had just been introduced. A field study was piloted at GMLF which envisaged identification of all leprosy patients in a fixed geographic area, followed by domiciliary treatment with dapsone. Rigorous health education was carried out to explain the true facts about leprosy. For the first time in a leprosy campaign, a house to house survey was carried out, and every man, woman and child was examined for signs of leprosy. That was the beginning of the SET (Survey, Education and Treatment) programme of GMLF. The work first started in Sewagram (Wardha) in 1952, was subsequently replicated in 12 other centres of GMLF in different States. It soon became obvious that the

SET programme, initiated by GMLF, was scientific, practical and a very effective method for control of the disease and the Government of India took it up. The National Leprosy Control Programme (NLCP) was started in 1955 and the SET method became the standard procedure for leprosy control in the entire country. Later, the WHO also endorsed the method, and it was adopted the world over.

The NLCP (which was later converted to National Leprosy Eradication Programme, NLEP) was able to achieve astounding success through careful planning and systematic work. The NLCP was included in the First Five Year Plan in 1955, and leprosy control work started in full swing. The first Government Leprosy Control Unit was established in 1958 at Hiramandalam in Srikakulam district of Andhra Pradesh. The subsequent Five Year Plans covered the entire country district by district. The pattern that was followed involved the setting up of Leprosy Control Units (LCU) and SET centres in each district starting from 1955. An LCU covered a population of one lakh, with a full time medical officer and 10 paramedical workers (PMW). An SET centre covered a population of 15000 with one PMW supervised by one part time medical officer. The Government and some NGOs set up a large number of training centres, where PMWs and doctors were trained. The Government and the NGOs co-operated to establish a large number of LCUs, and by 1970, the entire country was covered.

No data were available regarding the prevalence of leprosy prior to 1955. With the progress of NLEP, leprosy prevalence became clear and by mid-seventies, extensive data were collected. By 1980, a total of 40

lakh cases were recorded, giving a prevalence rate of 58 per 10,000 population. In 1982, there was a major advance in the treatment of leprosy. In 2005, the Government took another major step towards expansion of the NLEP. Leprosy work, which had been carried out so far as a vertical programme, was integrated into the general health services. There were no more special leprosy clinics. All hospitals, dispensaries and PHCs had to treat leprosy patients. Further, the field staff of PHCs had to take up case finding and follow up along with their regular duties. Multidrug therapy was introduced in 1982 with rifampicin, clofazimine and dapsone. This regimen was adopted throughout the country with remarkable success¹. A very rapid and steep fall in prevalence of the disease was seen. The fall was so spectacular that by 2005, the prevalence came down to less than 1/10000. A prevalence less than 1/10000 indicates a state of "elimination" of the disease, when the disease ceases to be a public health problem. This was indeed a landmark achievement. By the end of 2010, the prevalence came down to 0.69/10000². In this context, it must be pointed out that cases of leprosy are not uniformly distributed but tend to cluster in certain localities, villages or taluks. Hence, while the country as whole has eliminated leprosy, two States, Bihar and Chattisgarh are yet to achieve elimination (with a prevalence rate of 1.12 and 1.94, respectively). Of the total of 640 districts, 110 districts still have prevalence rates between 1 and 2/10000, while in 530 districts, elimination has been achieved².

While there have been remarkable achievements in several aspects of leprosy control within a span of just 4 to 5 decades, these need to be put into perspective in relation to the possibility of eradicating the disease and prevention of resurgence³. The most striking achievement of the Programme remains the reduction of prevalence to elimination level. However, in my experience there have been instances where some over-enthusiastic workers have not registered many new cases in order to keep the prevalence rates low. It is imperative that severe steps be taken to prevent such misdemeanors.

As mentioned above, it has been possible to bring down the Prevalence Rate to as low a level as 0.6/10000. However, an overall reduction in number of cases can cause problems like: (i) Reduction of political commitment, policy support and allocation of resources; (ii) Decline in capacity to diagnose and treat cases of leprosy⁴. In fact, an increase in the incidence of leprosy has already been reported in one district due to the above causes⁵.

Although elimination of leprosy has been achieved, new cases will continue to occur for some more years. Constant vigilance is required to see that the disease does not reappear in the community. It is seen that initially the Annual New Case Detection Rate (ANCDR) showed a significant fall¹. However, subsequent to 2005, it has more or less remained at the same level. This is a warning sign, and an indication that there should be an active thrust to identify new cases. It is important to identify any hidden infective source cases, trace and treat. A national sample survey was recently carried out to find out any difference in the known and actual cases (Katoch K, 2011, personal communication). Such surveys should be repeated.

Integration of leprosy into the general health service has greatly enhanced the scope of leprosy service. By integration, discrimination against leprosy has been removed and the patients have access to the services of ophthalmologists, surgeons, physiotherapists, and general physicians.

The most important step in eradication of any communicable disease is to knock out the last case. This can be achieved essentially by community participation for which vigorous IEC activities are required. It is only the enlightened public that can provide the solution to any social or public health problem.

With all the remarkable achievements in the fight against leprosy, the stage is now set for the final assault. It is hoped that the disease will be eradicated in the near future. The health authorities are highly capable and are fully armed, with political will that has sustained the NLEP all these years, India could well be leprosy-free.

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