LEPROSY CONTROL PROGRAM IN VIET NAM

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SUMMARY

The Vietnam National Leprosy Control Program (NLCP) was launched in 1982 and Multidrug Therapy (MDT) was implemented one year later (1983). Since then, remarkable progress has been achieved in reducing the disease burden. Vietnam reached the goal of leprosy elimination with the prevalence rate (PR) of less than 1 case/10,000 population at National level in 1995 and at District level in the year 2000.

After reaching the goal of leprosy elimination as a public health problem, in 2003 the NLCP set up the new strategy with 4 Vietnamese criteria for elimination at Provincial level. The Leprosy network was improved, and activities of the program were strengthened from Central to grassroot level. As a result, all provinces/cities gained the Vietnamese criteria of leprosy elimination in 2012.

Although the prevalence rate has come down, new cases are being continuously detected yearly in some regions of the country. Based on the new situation of the disease, a new strategy has been developed in order to eliminate leprosy at the district level.

1. SYSTEM OF LEPROSY CONTROL

Vietnam’s National Leprosy Control Programme was established in 1982. The Leprosy control system had been integrated into the Health care system which follows the Administrative system (Figure 1). The National Hospital of DermatoVenereology (NHDV) is leading institute responsible to the Ministry of Health (MOH) for skin diseases, sexually transmitted infections (STIs) and leprosy control in the whole country. In each province, there is a Dermato-Venereology Clinic, vertically under the NIDV, covering these three fields at provincial level. Dermato-Venereological activities including leprology work are integrated into general health system at district level. At the district’s Social Diseases Unit in endemic zones, several practitioners are specially trained to work exclusively in leprosy field whereas in less endemic district, they are in charge of some contagious diseases such as leprosy, tuberculosis, malaria, HIV/AIDS, etc. In each commune that includes 2-5 villages with 1,000-3,000 people, leprosy as well as other social diseases are managed by one or two health workers (Figure 2). Because of poor infrastructure at Communal Health Stations, their main work is to refer suspect cases for diagnosis confirmation, to treat and follow up confirmed cases. Antileprosy drugs are stored at any levels, from central to local.

1: Hanoi Medical University
**Figure 1: Health Care System**

**Figure 2: Dermatology and Venereology System**
1. PHASES OF THE PROGRAM

The leprosy control program in Vietnam were divided into 4 phases as follow:

2.1. Phase 1 (1945-1974)

In this phase the prevalence rate of the disease was very high. There was an estimate of more than 100,000 patients in the Northern part of the country. Because of the shortage of medical staff, most of the cases were detected very late with severe deformities.

In this period, the treatment of the disease was monotherapy with Dapsone. Moreover, many cases were isolated at leprosy centers/leprosarium.

2.2. Phase 2 (1976-1981)

After reunion of the country, system of leprosy network was developed from the national to grassroots levels in the whole country. The activities of the program were actually integrated into the primary healthcare system. The treatment of the disease during this period was more effective with the combination of Dapsone with other antibiotics.

2.3. Phase 3 (1982-2000)

The national leprosy control program (NCLP) was established in 1982 and MDT implementation was launched in 1983. As a result of the efforts undertaken by the National Program, Vietnam reached the goal of leprosy elimination at the National level in 1995 with the prevalence rate less than 1/10,000 population. In this period, several special projects (LEC, SAPEL) were implemented in very special places for accelerating activities of new case detection and management of the disease. The prevalence rate declined dramatically from 6.78/10,000 population in 1983 to 0.23/10,000 in the year 2000. However, the case detection rate shown a small falls, from 3.74/100,000 population in 1983 to 1.94/100,000 in 2000.

2.4. Phase 4 (2001-2020)

After reaching the goal of leprosy elimination as a public health problem at the national level and provincial level, new strategy was developed in 2003 for reaching the target at all provinces in the country.

The criteria for leprosy elimination at provincial level:
- Prevalence rate (PR) less than 0.2/10,000 population.
- Case detection rate (CDR) less than 1/100,000 population.
- Disability rate in new cases less than 15%.
- 100% of health staff, community leaders, school pupil have basic knowledge of leprosy.

In 2012, all provinces/cities of the country reached the goal of elimination with Vietnamese criteria.

For reaching the final goal of leprosy eradication, the new strategy with many activities has been developed for attaining the elimination goal at district level.

The criteria for leprosy elimination at district level:
- Prevalence rate less than 0.2/10,000.
- 100% of leprosy patients/PAL, with disabilities has benefit from POD and rehabilitation activities.
- No stigma/discrimination of leprosy in community.
- 100% of poor/disabled patients/PAL have owner of houses.
3. KEY COMPONENTS OF THE PROGRAM

3.1. Activities of case detection and management

New case detection is always an important indicator of the programme. Good community awareness encouraged people with suspect signs and symptoms to go to the specialist for diagnosis confirmation. Other kinds of examinations are also carried out including contact examination, integrated examination, group examination... In addition, SAPEL and LEC are also implemented in high endemic zones.

All detected patients were treated with MDT free of charge. The duration of treatment for PB patients was 6 months with observed monthly dose of rifampicin and daily dose dapsone. For MB patient observed monthly dose of rifampicin and clofazimine was combined with daily dose of clofazimin and dapsone. The duration of treatment for MB patients used to be 24 months and then shortened to 12 months from 2005. The MDT storage was available at all communal health stations, even to all the village in the endemic zones.

Handbooks of guideline were distributed to the patients, giving them useful guides to early detect the complications including, drug eruption, neuritis and other sign effects. All patients with these problems were referred to leprosy specialists for diagnosis.

3.2. Prevention of disabilities and rehabilitation

For prevention of disabilities among persons with insensitive hands and feet, they are given dressing material, supportive medicines and micro-cellular rubber. Moreover, persons with deformities were taught to prevent themselves through handbooks and training courses. 80% of patients were provided with special shoes to prevent foot injury. 50% of the patients with eye closure problem were provided with special glasses. More than 1,000 patients received reconstructive surgery annually.

3.3. Information, education and communication (IEC)

Intensive IEC activities are conducted for awareness generation and particularly reduction of stigma and discrimination against leprosy affected persons. These activities are carried out through mass media, rural media and advocacy meetings, training courses... It is very important that the basic knowledge of leprosy has been included in the curriculum of primary school.

3.4. Reducing stigma/discrimination

Although treatment for leprosy is highly effective and able to reduce the symptoms and keep them under control, this disease still brings a lot of suffering to people affected due to the stigma associated. A lot has been done for intervention to reduce leprosy-related stigma in Viet Nam since the NLCP launched.

The implementation of MDT, which effectively treated leprosy patients, itself eased the stigma burden by reducing visible deformity rate. The main features of leprosy are taught in the primary school in the endemic areas. Misconceptions about the causes of leprosy, that could have perpetuated stigma, were also prevalent among health care workers in the past. But the misconceptions have been gradually reduced due to the retraining courses held by
the National Programme which provided health care workers with more accurate knowledge of leprosy. Moreover, the antileprosy work, since last decades, has been integrated into the general health care system, so that people recognized that leprosy is actually an infectious disease and deformed persons by leprosy are just like other handicapped person. Patients are treated free of charge with MDT at their own home and they can have a job suitable to their health. Marriage is accepted for leprosy patients and many patients have children after diagnosis. Public and private schools allow children born to leprosy patients to attend, and these children can study with other children in the community.

4. RESEARCH OF LEPROSY IN VIETNAM

Multidrug therapy (MDT) is a major advance in leprosy control and has raised hopes among patients, health staffs and program manage alike. The treatment was conducted in Vietnam in 1983 in all provinces of Vietnam. As a result, the prevalence rate of the disease dropped to less than 1/10,000 population in 1995 and Vietnam attained the goal of elimination of leprosy as a public health problem. However, the prevalence and detection rates was still very high in the remote areas particularly in the high plateau and mountainous regions.

For acceleration of the activities of the program, many special projects such as SAPEL (special action projects for elimination of leprosy) and LEC (leprosy elimination campaign) were implemented in the high prevalence areas. The activities of case detection and management of patients were greatly improved. As a result, many new cases were detected in the difficult-to-access areas, the number of cured patients considerably increased and the proportion of grade 2 disability among new cases was significantly declined.

In 1992, the new therapy of leprosy with ofloxacin-containing combined drug regimens with 4 groups for 4 regimens were conducted in some provinces in the 3 parts of the country. A total of 349 active untreated leprosy cases were allocated for the study. Among them, 322 successfully completed the different 4 regimens. After release from treatment (RFT), all of them were followed up for 15 years. The total duration of follow up of the patients was 4,890 person-years. The result of the study showed that moderate to remarkable clinical and bacterial improvement was observed in all patients. However, relapse rate was very high among cases treated with the regimen of ofloxacin and rifampicin daily for only one month.

For elimination of stigma and discrimination related to leprosy, many activities were developed. The integration of leprosy services in health care system were strengthened and improved. Many campaigns of health education on the disease were launched in the community. Besides, early detection of case was prioritized. GPAT (Gelatin Partical Agglutination test) was applied for detection of mycobacterium leprae infection prior to the onset of clinical disease. With the study, many new cases were detected at early phase of the disease without disability. The result of the study showed that GPAT seropositivity rate was significantly higher among those contacts living in households. It was very interesting that GPAT showed that children with GPAT positive at high titer of 1:64 or over and whose mother/
father being a leprosy patients can be considered as the highest risk group of eventually developing the disease. In this sense, GPAT proved to be an indicator for early detection of leprosy children.

Activities of prevention of disability (POD) and rehabilitation is very important for patients and people affected by leprosy (PAL). This field was developed after the leprosy control program established in 1983. Many surveys of the levels, grade of deformities of patients anf PAL were conducted in leprosy centers, leprosy villages. Research of physiotherapy and reconstructive surgery in the people with severe desabilities was applied in many provinces. More interesting, these activities have been integrated into community-based rehabilitation (CBR). As a result, many patients, PALs, had benefit from the program and came back to live normally in the community.

Apart from the above studies, major priorities for research in immunology of leprosy were developed and implemented in Dermatology and Venereology centers. PCR (Polymerase Chain reaction) was realized for early dectection of the diseases and following the progress of treatment. Early detection of leprosy reactions by advanced techniques was proved to be very effective for the management of complications of the disease. The patients with risk factors followed by appropriate treatment could prevent the morbidity of reactions. In addition, ELISA (enzyme linked immunosorbent assay), histopathology and immunofluorescence were applied in the investigation of the pathogenesis of lepra reactions, eventually for detection and prevention of complications such as neuritis, disability, blind…

For more than 30 years, Vietnam has seen a highly significant decrease in the prevalence rate of leprosy since the introduction of multidrug therapy in 1983. The prevalence rate dropped significantly from 6,78 per 10,000 population in 1983 ton 0,01 per 10,000 in 2018, while the case detection rate shown a smaller fall, from 3,74/100,000 population in 1983 to 0,1/100,000 in 2018. During the period 1995-2018, the proportion of multibacillary cases (MB) among new case increased by around 30% and the proportion of children among new case decreased by 100%. With the implementation of MDT in 1983, with the development of many projects/studies as well as several other activities, the epidemiology of leprosy in Vietnam has dramatically improved and majority of the patients and PAL are now able to live normal lives in the community without being stigmatized and discriminated.

Despite significant improvements in leprosy treatment and outlook for patients since the introduction MDT, the prevalence and incident rates remain high in some areas and patients often have long-term complications associated with the disease. In order to reach the final goal of leprosy eradication, we continue to sustain all activities of the program including the development of research projects involved in genetics, susceptibility and disease resevoirs…

5. FUTURE ACTIVITIES

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REFERENCES


