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THE CONTROL OF VENEREAL DISEASES IN SRI LANKA

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Introduction

Venereal diseases by definition include only syphilis, gonorrhoea, chancroid, granuloma inguinale and lymphogranuloma venereum. They are diseases transmitted primarily through sexual intercourse with an infected partner.

Other diseases transmitted in the same way were recognized from time to time. These together with the classical venereal diseases came to be called sexually transmitted diseases (STD). The use of this term became fashionable with the passage of the National Health Service Venereal Diseases Regulations 1974 in the United Kingdom. These regulations extended the service provided to all sexually transmitted diseases.[1] The term sexually transmitted infections (STIs) is now being used by some.

STDs are transmitted from an infected person directly to a susceptible host. There is no vector. Therefore, primary prevention is by avoiding unprotected sexual intercourse with casual partners or sex workers who could possibly be sources of infection. Secondary prevention involves diagnosis and early effective treatment of the infected person and the immediate sexual contacts.

Therefore, the work of a STD clinic comprises essentially of early diagnosis and treatment, health education, and tracing and treatment of contacts.

History of Venereal Diseases Control in Sri Lanka

It is reasonable to think that venereal diseases and syphilis in particular did occur in ancient Sri Lanka. But their prevalence in Sri Lanka seems to have been so low, that they seem to have been reintroduced in the early sixteenth century by the Portuguese who invaded the west coast of Sri Lanka.[2] Shortly before the arrival of the Portuguese to Sri Lanka an epidemic had occurred in Europe. While the Portuguese introduced syphilis, yaws was also introduced at the same time to Sri Lanka by African slaves who were brought by the Portuguese.

Measures to control venereal diseases in Sri Lanka have been in operation for about 160 years. The Vagrants Ordinance No. 4 of 1841, the Contagious Diseases Ordinance No. 17 of 1867, the Brothels Ordinance No. 5 of 1889 were passed with a view of controlling venereal diseases. The Contagious Diseases Ordinance required the registration, examination and treatment of all prostitutes, but the control of venereal diseases by this measure could not have been successful. During this period there had been three wards in Colombo, Kandy and Galle for the treatment of women suffering from venereal diseases.

In 1916, the Royal Commission on Venereal Diseases recommended that only doctors trained in venereology should treat venereal diseases. This established the speciality of venereolgy in Great Britain. However, in the USA, Europe and in many parts of the world including India, venereology was combined with dermatology and the specialists were designated dermato-venereologists. This remains so even today.

The Venereal Disease Commission appointed by Mr. Winston Churchill, the then Secretary of State for Colonies arrived in Sri Lanka in May 1920. As a result, venereal diseases control on an organised basis was started in 1921. Free part-time

venereal diseases clinics were organised for seamen in the Port of Colombo, for women and children in the Lady Ridgeway Hospital, Colombo and for men at the General Hospital, Colombo. Neosalvasan, a treatment used for syphilis, was made available to all government hospitals in the island.

In 1926, Sri Lanka undertook to observe the provisions of the Brussels Agreement of 1924, to provide free venereal diseases treatment for seafarers.

In 1931, a part-time venereal diseases clinic was opened at the Kandy Dispensary. By 1934 the Venereal Diseases Clinic, Colombo was functioning on all weekday afternoons. In 1937 a clinic was opened in Galle, which functioned every Saturday.

In 1938, a Venereal Diseases Control Programme was initiated by the then Department of Medical and Sanitary Services. Clinics were organised in outstation hospitals and dispensaries. The Venereal Diseases Ordinance No 27 was passed in the same year. It required that registered medical practitioners and indigenous medical practitioners with special permission only, could treat venereal diseases. But this was never put into practice.

In 1942, venereal diseases were made notifiable but again this was not implemented. In 1939, venereal diseases control was placed under a qualified surgeon, Dr. H.C.P. Gunawardene, who reorganised the control programme.

In 1941, 10 medical officers were trained for three months in Colombo. They were placed in charge of part-time clinics in outstation hospitals. By 1944, there were 23 part-time clinics, of which 13 were under trained medical officers. The training of medical officers continued and by 1948, 37 were trained but only one outstation clinic was manned by a fully trained medical officer. This was because officers were transferred without replacement by trained personnel.

Case holding was introduced in Colombo in 1941 and contact investigation a few years later. The success of follow up work was shown in Colombo by the doubling of subsequent visits between 1942 and 1948. In 1942, in the Colombo Venereal Diseases Clinic, there were 3340 first visits and 24,787 subsequent visits by males, giving 7.4 as the ratio of subsequent visits to first visits. In 1948, first visits were 3,086 and subsequent visits 51,701 giving a ratio of 16.8. This is an index of the popularity of the clinic, as these were the days when treatment was with arsenic and bismuth and case holding was more difficult than now.

In 1949, Professor George Leiby, Professor of Syphilology of the University of California visited Sri Lanka on a WHO assignment, on a request by the government of Sri Lanka. He was impressed by the work done, especially the contact investigation work in Colombo. The drawback observed was the inadequate number of trained personnel and frequent transfers of those who had specialised in the work. Ironically, this drawback still remains. Among his proposals was the establishment of 60 venereal diseases clinics, each in charge of a full-time trained medical officer with special staff.

The sulphonamides were introduced for the treatment of gonorrhoea in 1937. Within a few years they became totally ineffective. Penicillin was introduced in 1946. A low dose of 50,000 units of crystalline penicillin twice a day for one day was curative. The dose was increased when penicillin became freely available and in 1951 crystalline penicillin was replaced by procaine penicillin with aluminium monostearate (PAM).

In the treatment of syphilis arsenic and bismuth were used in the early 1920s. They were replaced by PAM in 1950.

In 1950 contact investigation and health education work was intensified. All patients attending the clinic were educated regarding the diseases, the mode of transmission, the importance of regular attendance as well as the necessity of referring contacts to the clinic. Mass education of the public was also undertaken. These efforts over 30 years, from 1920 to 1950, to control venereal diseases in Sri Lanka lacked direction and continuity.

In 1951, the Chief of the Venereal Diseases and Treponematoses Section of the WHO, Geneva visited the island. As a result, the WHO established the Venereal Diseases Control Project (Ceylon 0005), which was one of the earliest field projects undertaken by the WHO in the South East Asia Region. A venereal diseases control team under the leadership of Dr. S.M. Laird arrived in Sri Lanka in 1951. The objectives of the project were:

1. To establish a model venereal diseases clinic in Colombo, which would serve as- (a) the chief clinic for Ceylon and (b) the training centre for medical and paramedical personnel.
2. To develop a full venereal diseases service with trained staff in the main outstations.
3. To establish serological tests for expectant mothers as routine and thus to control congenital syphilis.
4. To train local staff in simple serological testing so as to provide such facilities in the main outstations.
5. To develop diagnosis and treatment facilities for seafarers in the Port of Colombo.[3]

Through Dr Laird's good offices the Anti-Venereal Diseases Campaign (the Anti VD Campaign) was established in 1952 with Dr. Mrs. E.D.C. Pereira as Superintendent. She was a dynamic leader, who was able to attain most of the objectives of the project. She saw to it that every type plan OPD block of a provincial hospital had rooms demarcated for a VD clinic with separate access.

The model clinic was completed and came into operation in 1952. Serological testing for expectant mothers was started as routine in Colombo in the same year. The campaign of public education was further developed. Lecture demonstrations were started for postgraduates, undergraduates and paramedical personnel.

In 1953, the eradication of yaws was also made the responsibility of the Anti-VD Campaign. Yaws by that time had receded considerably and is now no longer a problem in Sri Lanka.[4]

Since 1953, the Anti-VD Campaign was conducted entirely by national staff. When Dr Laird revisited Sri Lanka in 1958, he concluded, "The Anti-VD Campaign has made solid progress and the initial improvement stimulated by the WHO team in 1951-53 has been extended by the national staff during the last five years. While progress towards the chief objective varies, a good start has been made in all five and some have already been achieved."[5] He also found that about 55% of all new attendees in 1957 in Colombo were found to be free of venereal diseases. He said that

this is probably a good index of public confidence in the clinic and perhaps some measure of the Campaign's public educational activity.

Sixteen major outstation clinic centres was the goal earmarked in 1952. By 1958 only half of them had been established.

Selection and training of medical officers, which started in 1952, had been delayed due to the shortage of doctors. Even among the doctors trained, 44% had left the Campaign.

The new Port VD Clinic was opened in 1958. A venereologist and a medical officer visited this clinic on two afternoons a week. This clinic is no longer functional because the clinic building was taken over by the Port Authority.

In 1958, Laird stressed the need for a new laboratory for syphilis serology under a medical officer trained in serology. He preferred that this laboratory be situated in the Central Clinic. This was achieved in 1968.

In 1967, Laird revisited Sri Lanka and concluded that the five main objectives of the Project have been achieved and the Anti-Venereal Diseases Campaign has been maintained and further developed by the national staff during the last 14 years.[6]

In 1971, the Central Venereal Diseases Clinic (CVDC) and 11 full time VD clinics were functioning in provincial and base hospitals distributed all over the island. From each of these, the medical officer conducted a branch clinic about 25-30 miles away. At that time, the CVDC was manned by medical officers specialised in venereology. The others were conducted by medical officers who had opted for venereology as a career. They were trained for three months at the CVDC before they assumed duties at outstation clinics.

In some large hospitals part-time VD clinics were held once or twice a week by medical officers who were trained at the CVDC for two weeks.

Today we have the Central STD Clinic, 16 full-time clinics in provincial and base hospitals and 14 branch clinics. However, the target proposed by Professor George Leiby for 1952, was 60 full-time clinics for a population of 7 million people has not been achieved. Today we have 20 million people.

The 13th amendment to the constitution of Sri Lanka implemented in 1989 caused further problems for the control of venereal diseases. The Anti-VD Campaign was disbanded. The Director of the campaign who is now called the Director, National STD/AIDS Control Programme (NSACP) lost control of all the clinics except the Central Clinic in Colombo. STD clinics were never a priority concern of the government health service. The situation became worse with the outstation clinics going under the management of the provincial health services. The standard of work deteriorated. Attendance fell. Returns stopped coming to the centre regularly. Some clinics were manned by medical officers who had no training at all in venereology.

In 1996, I urged that all full time clinics be taken under the STD/AIDS Control Programme and for a start the clinics at Galle, Colombo South, Ragama, Jaffna, Kurunegala, Ratnapura and Kegalle be taken over by the Programme.[7] They were sited in hospitals, which were already under the control of the Central Ministry of Health. The Cabinet approval for this proposal was granted to bring these clinics under central control. However, the provincial councils are reluctant to hand them over.

Specialization in Venereology

In Sri Lanka, the speciality of venereology was born in 1952 with the establishment of the Anti-VD Campaign. It was considered a finer speciality of public health.

Medical officers had to opt for a career in venereology in order to join the Campaign. A qualification for selection, was experience of two years as a Medical Officer of Health. Selected officers trained for three months at the CVDC before they were sent to man outstation clinics. Later they were sent to the UK, USA or Canada for training as specialists. They obtained a Diploma or a Masters in Public Health, and special training in venereology for six months in a centre or centres of excellence. These officers were trained abroad on WHO or Colombo Plan fellowships.

In the 1970s there was a separate cadre of venereologists, separate from the cadre of specialists in public health.

From 1980, only postgraduate qualifications from the Postgraduate Institute of Medicine (PGIM) were recognized in the government health service of Sri Lanka. The specialist qualification in venereology became the MD in Community Medicine. Initially officers who were already in the Campaign obtained the MSc and then the MD in Community Medicine. As a part of work for the MSc they submitted a dissertation on a subject related to STD. They wrote their thesis for the MD on a similar subject.

It was gradually realized that the training of a specialist in venereology was inadequate. This was best seen when a medical officer who had not worked in an STD clinic wanted to specialize in venereology. He could do a thesis on a subject related to venereology, have very little experience in care of STD patients and obtain an MD.

Venereology involves a very large component of clinical medicine. This is especially so in this era of HIV disease. The inadequacy of training of venereologists was taken up by the College of Genitourinary Physicians (later called the College of Venereologists), which was formed in 1995. First the college proposed a Diploma in Genitourinary Medicine (later changed to Diploma in Venereology) at the PGIM. Although the PGIM was supportive of this move there were difficulties in finding a Board of Study under whose aegis this could be organised. After several discussions with Board of Study in Community Medicine it was finally decided that it would be best that a Board of Study in Venereology be formed. The PGIM and the University Grants Commission have accepted this proposal. The Board of Study in Venereology will be formed soon. It will initially organise the Diploma in Venereology and later a MD. For an interim period the MSc and MD in Community Medicine with special work in venereology will continue as the recognised qualifications in the field.

The pattern of sexually transmitted diseases

The classical venereal diseases were syphilis, gonorrhoea, chancroid, granuloma inguinale and lymphogranuloma venereum.

Of these, syphilis was the most important because in its later stages it affected almost all systems of the body. Before the advent of penicillin, cardiovascular syphilis and neurosyphilis were causes of considerable morbidity and mortality.

Gonorrhoea was the next important. It was the most common cause of discharge per urethra. However non-gonococcal urethritis (NGU) also called non-specific urethritis (NSU) became commoner than gonorrhoea, as a cause of urethritis, by the 1970s.

Over the years the pattern of diseases shifted from bacterial to viral, from curable to treatable but incurable.

By the 1970s, even in Sri Lanka, the most common cause of genital ulceration was herpes simplex infection.[8]

The 1980s saw the advent HIV infection. This changed the whole scene of venereology. The speciality, which was in the backwoods, became a high profile one. In developed countries HIV/AIDS attracted money and dynamic doctors to the speciality. New purpose built clinics replaced those housed in basements and rundown buildings.

Today although the bacterial infections, syphilis, gonorrhoea and NSU remain they have been outnumbered by viral infections, herpes simplex, papilloma virus and HIV.

The Treatment of Sexually Transmitted Diseases

Before the advent of penicillin in the 1950s the treatment of syphilis and gonorrhoea was not satisfactory. The drugs used were toxic and had little effect.

In the treatment of syphilis arsenic and bismuth were used in the early 1920s. They were replaced by penicillin in 1950. Treponema pallidum, the aetiological agent of syphilis still remains sensitive to penicillin.

Gonorrhoea resulted in urethral strictures in men. Dilatation of the urethra was common procedure in VD Clinics. The sulphonamides were introduced for the treatment of gonorrhoea in 1937. Within few years they became totally ineffective. In 1946 penicillin was introduced. A low dose of 50,000 units of crystalline penicillin twice a day for one day was curative. The dose was increased when penicillin became freely available and in 1951 crystalline penicillin was replaced by procaine penicillin with aluminium monostearate (PAM). In contrast to the treponeme of syphilis the gonococcus became resistant to many antibiotics. Penicillinase producing Neisseria gonorrhoea emerged in the Far East in the 1970s. The choice of antibiotics for the treatment of gonococcal infections has to be on laboratory-based surveillance. This activity is carried out by the Central Laboratory of the NSACP, which participates in the global Gonococcal Antimicrobial Susceptibility Program initiated by the WHO.[9]

Herpes simplex infections could be treated with acyclovir and the newer drugs of the same class. But it cannot eradicate the virus.

There is no treatment to eradicate the papilloma virus, which is implicated in the etiology of carcinoma of the cervix.

Drugs have retarded the progression of HIV disease. But no cure or vaccine would be available in the near future.

The College of Venereologists of Sri Lanka

The College of Genitourinary Physicians of Sri Lanka was inaugurated in October 1995. The name was later changed to the College of Venereologists. The College has been active and been able to unite people working in the speciality. Annual Academic Sessions have been held for four years. The proceedings of these sessions have been published. The College has been concerned with standards in venereology. It has pioneered the formation of a Board of Study in Venereology.

The Present and the Future

The responsibilities and the scope of the NSACP has widened since HIV/AIDS prevention was incorporated to the existing STD control programme. The NSACP coordinates the National AIDS prevention programme of Sri Lanka and provides technical assistance to all stakeholders. The Central STD clinic and laboratory in Colombo function as the National Reference Centres for STD diagnosis and management. The Central STD Clinic Colombo is a training centre for the MD Community Medicine training programme of the PGIM and the NSACP trains medical undergraduates and postgraduates (in family medicine, child health, obstetrics and gynaecology), as well as nursing officers, public health inspectors, medical laboratory technicians and microscopists. In the future it will be the main training centre for the Diploma in Venereology and the MD in Venereology.

In addition to the Central STD Clinic there are 16 STD clinics situated in provincial and base hospitals and 14 branch clinics.

In 1996, the World Bank committed the major part of its funds under the Health Services Project (IDA/WB/HSP/SL) to strengthen the NSACP. The major part of this investment of Rs. 602 million was for the construction of the modern four-storied Central STD Complex in Colombo and 21 upgraded or newly constructed provincial hospital or base hospital clinics.[10]

The Central Complex, which has already been completed houses the office of the Director, clinics, National Reference Laboratory, auditorium, library, audiovisual and health education center, pharmacy and pre-employment medical screening center.

Due to the limited availability of data on the prevalence of STD and their complications the burden of these diseases is substantially underestimated. STDs are not notifiable in Sri Lanka. However, the epidemiological patterns of these diseases could be inferred from the data reported to the clinics of the NSACP. In 1991, two visiting WHO consultants Drs Frank Judson and John Gallway, estimated that around 200,000 new episodes of STD occur annually of which only 10-15% are seen in government STD clinics. Most persons with STD seek treatment in the private sector where no statistics are reported to the NSACP.

Genital herpes, syphilis, non-gonoccocal infections, gonorrhoea and trichomonas infections are the most frequently reported STDs. A rising incidence of genital herpes has been noted during the last 5 years. It constituted 21% of STDs reported to the NSACP in the year 2000.[11]

The first Sri Lankan infected with HIV was reported in 1987 and the first indigenously transmitted case was reported in 1989. Since then up to December 2000 the cumulative number of HIV cases reported to the NSACP was 358. Of these 119 had AIDS. Reported AIDS deaths are 89. Sentinel surveillance studies conducted since 1993 have confirmed that Sri Lanka remains a country with low prevalence of HIV infection.[12]

Syndromic approach to management

The Anti-VD Campaign was British oriented. The idea was to have a system of clinics under control of specialists. The practice in these clinics was to make an aetiological diagnosis backed by laboratory findings and then to manage the patient on national guidelines. These required high level of training and a large number of medical officers.

In Sri Lanka this system worked satisfactorily till the late 1970s when all the provincial STD clinics and some base hospital STD clinics were staffed by specialists or trained medical officers who had opted for a career in STD. This era was followed by a period of decline when several full time clinics folded up due to an exodus of trained manpower. It was realised that while the incidence continued to rise STD services were not accessible to the vast majority of people.

The global concern regarding the continued spread of STDs lead to a change in strategies first discussed in the 1980s. The WHO consultation in 1990 lead to the WHO Technical Report Series No. 810, which illustrated the algorithms of the syndromic approach to management of STDs.[13] This strategy provided for the management of STDs at the first point of contact with the health care system. There was no referral to any other clinics unless it was clearly specified in the flow charts.

The modules were first tested in Sri Lanka in 1995. Each syndrome uses a clinical algorithm based on patients presenting symptoms and clinical signs to determine antimicrobial therapy. The Ministry of Health has endorsed in principle that syndromic management be included in the strategy in the prevention and control of STDs. The NSACP has already trained medical officers at PHC level in Kurunegala District, and in the army and the police. It has produced a Manual on STD treatment.[14]

There is no shortage of medical officers in the government health service now. Moreover the government has pledged to absorb all new medical graduates till 2010. A draft has been prepared by the Department of Health regarding the needs of specialists by the year 2010. This document envisages STD clinics in Type A Base Hospitals, Type A District General Hospitals, Type B District General Hospitals, Provincial Hospitals and Teaching Hospitals to be manned by specialists. The number needed is 47.[15]

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