8

TUBERCULOSIS IN SRI LANKA

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Historical Background

Measures to control tuberculosis were introduced by the colonial rulers as far back as 1916 when the Anti-Tuberculosis Institute was opened in the Pettah. Subsequently, chest hospitals were established at Ragama and Kandana in 1917 and 1918 respectively; another chest hospital was established, in 1937, in Welisara. Recognising the need for a more concerted effort in the control of tuberculosis the government established the Anti-Tuberculosis Campaign in 1945.[1] The Anti-Tuberculosis Campaign (ATBC) functioned as a centrally administered special programme under a Superintendent, (later designated the Director of the Campaign). A BCG Campaign was started by the ATBC in 1949 to vaccinate those who were found to be 'mantoux negative'. This programme paid special emphasis to BCG vaccination of school children. BCG vaccination of newborn infants commenced in 1963 to prevent the occurrence of tuberculous meningitis and miliary tuberculosis in childhood. Mass Miniature Radiography was introduced in 1950, and it was observed that about one percent of the employed adult population showed signs of tuberculosis.[2]

Mr Donald Barlow, and eminent British Thoracic Surgeon visited Sri Lanka to report on the thoracic services with special reference to tuberculosis, in 1952. The recommendations contained in his report were adopted by the government and implemented by the ATBC. On a subsequent visit two years later, Barlow reported, 'Great strides have been taken both in prevention and care.... The Government of Ceylon has realized that tuberculosis is a curable and preventable disease and has attacked the problem with vigour and determination. No government could have been more alert to its responsibilities.'[3,4]

Among the recommendations made by Barlow were the following:

- To rapidly erect light construction wards for the accommodation of tuberculosis patients in hospitals.
- To establish chest clinics.
- To train personnel- doctors, nurses, health visitors and other paramedical personnel.
- To make arrangements for public education in tuberculosis.
- To make provision for domiciliary treatment of patients.

Based on his recommendation chest wards, chest clinics and branch clinics were established in many parts of the island. Today, there are 14 chest wards in government hospitals, 21 chest clinics and 34 branch clinics.

Recent Developments

Tuberculosis was declared a "global emergency" by the World Health Organisation in 1993, as even developed countries were getting devastated by the increasing numbers of patients with tuberculosis. The advent of HIV/AIDS made the situation even worse, as TB became the commonest infection contracted by such immune-compromised patients, especially in Asian and African countries. The evolving Multi-

Drug Resistant (MDR) strains have made this disease a fatal one due to the non-availability of an effective regimen of drugs (and the prohibitive costs of those available) for such patients. The WHO has now recommended "DOTS" (Directly Observed Treatment, Short course) as the ideal treatment for TB patients. This means that a doctor, nurse or trained health worker observes the patient swallowing the daily dose of medicine to ensure compliance.

Achievements

Over the years Sri Lanka has managed to reduce the morbidity and mortality from tuberculosis considerably. This was achieved by making free diagnosis and treatment available throughout the country with initial indoor treatment at a local hospital close to the patient's home. Financial assistance, a small monthly allowance given by the Social Services Department to needy patients who were certified by the district TB control officer to ensure regular visits for treatment, and six months of paid medical leave given to those employed, acted as incentives to achieve completion of treatment and cure. In addition, a successful BCG vaccination programme has brought about reduction of childhood TB.

Regular training (local and foreign) and refresher courses for staff -District Tuberculosis Control Officers (DTCO), public health inspectors and medical laboratory technologists- have kept them updated with current information on the subject and enabled them to provide a better service to patients. While diagnosis is made with x-rays, sputum smear and culture, the treatment has been changed from a drug regimen lasting 2 years, 1½ years, 1 year to 6 months in 1988, using the currently accepted short course (2RHEZ/4RH), even before it was globally accepted. More importantly DOTS has been practiced in Sri Lanka during the initial intensive phase (two months) of treatment from many years ago, by admitting the patients to a TB ward.

Constraints

The TB control programme has many set backs:

- Drug collection for the peripheral chest clinics, done at present by the divisional drug stores, has been erratic at times, making DOTS ineffective.
- Many TB wards have been closed down or handed over to general physicians, by the provincial authorities making this specialised programme ineffective.
- Trained and qualified DTCOs are being replaced by new medical officers, causing a breakdown in the chest clinic services.
- Central supervision is inadequate due to lack of staff at the centre.
- Inadequate supervision of DOTS due to lack of transport for the DTCO.
- Shortage of important staff such as microscopists and public health inspectors, disrupts diagnosis and follow up of defaulters.
- Inadequate assessment of already functioning DOTS programmes, delays remedial action and improvement of the quality of new ones.

The Present Scenario

Morbidity and mortality from tuberculosis has shown a steady decline over the years- from 88 per 100,000 in 1962 to 30 per 100,000 in 1999. At present about 6,000 to 6,500 cases are notified every year. However, there are no statistics from the private sector although notification is a legal requirement. The estimated incidence of all TB

cases in Sri Lanka is 11,000 (WHO global report 1999). The case detection rate in Sri Lanka is, therefore, only 63 percent and needs to be improved.

All diagnosed TB patients are treated with short course chemotherapy (SCC). New cases are treated with 2RHEZ/4RH (2 months of intensive treatment with rifampicin, INAH, ethambutol and pyrazinamide, followed by 4 months of rifampicin and INAH).

Retreatment cases (i.e. relapses, treatment failures and sputum positive returns after default) are treated with 2RHEZS/1RHZE/5RHE.

Treatment is monitored by follow up sputum smear examinations at specified intervals.

The DOTS strategy has been implemented in six districts, starting from Galle in 1997, in Colombo, Gampaha, Matara, Kandy and Anuradhapura.

The STD/AIDS programme has been carrying out a regular sentinel survey of new TB patients in Colombo, Galle and Kandy patients over the past few years.

Future challenges

Multi-Drug Resistant tuberculosis (MDR TB) is the greatest challenge faced by every country. Sri Lanka is no exception. It is fatal as there are no effective drugs; the available drugs give no guarantee of a cure, and are totally inaccessible to developing countries in terms of cost. The only way out of this situation is to see that all diagnosed cases are cured by DOTS and not allowed to proceed to the stage of MDR TB.

References

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