



REGIONAL OFFICE FOR THE WESTERN PACIFIC
BUREAU RÉGIONAL DU PACIFIQUE OCCIDENTAL

REGIONAL COMMITTEE

Twentieth Session
Manila
23-30 September 1969

WPR/RC20/6
8 July 1969

ORIGINAL: ENGLISH

Provisional agenda item 13

FILARIASIS CONTROL: A PROGRESS REPORT

Filariasis occurs in many countries and territories in the Region and is an important public health problem, particularly in the South Pacific area. In most of the countries and territories affected, more efforts have been exerted recently to its survey and control.

1 GENERAL REVIEW OF FILARIASIS IN THE REGION

Periodic and sub-periodic forms of W. bancrofti and of Brugia malayi occur in this region. The "Timor microfilaria", of which the taxonomic status remain uncertain, has been found only in Timor and some nearby islands.

Periodic W. bancrofti has a wide distribution in China (Taiwan), Japan, Malaysia, the Philippines, the Ryukyus, Republic of Viet-Nam, Singapore, and the northern and western zones of the South Pacific. The important vectors are Culex pipiens fatigans (in most localities), anopheline species (in some localities), and Aedes poecilus (in the Philippines). The sub-periodic form of W. bancrofti occurs only in the eastern zone of the South Pacific, and its most important vector is Ae. polynesiensis.

The periodic form of B. malayi has been found in a small area of Japan, in Malaysia, and in Chejudo Island and the southern parts of the Republic of Korea. The vectors are Mansonia mosquitoes and Ae. togoi.

/The sub-periodic ...

The sub-periodic form is known so far only in Brunei, Malaysia and the Philippines, and the Mansonia species is responsible. This form is found also in wild and domestic animals in West Malaysia.

In areas where filariasis is an important public health problem, such as American Samoa, Cook Islands, Fiji, French Polynesia, West Malaysia, the Philippines, the Ryukyus and Western Samoa, special campaigns have been undertaken or a separate budget set up. The control measure mainly used is treatment with diethylcarbamazine. Spraying with insecticide is being undertaken in China (Taiwan), the Philippines, the Ryukyus, and in some other countries and territories in the South Pacific.

Filariasis is usually only one of the many major disease problems prevalent in a number of countries and the attention given to its control by governments will naturally depend on a number of factors. In some countries, the epidemiological features of the disease have not all been determined. There is also a need in many instances to study the mosquito vectors and their bionomics. In the developing countries, particularly, technical staff to conduct these studies are generally not available. In many cases, the health services, particularly at the peripheral level where the disease is usually prevalent, are not sufficiently developed. The implementation of control measures, particularly the distribution and supervision of drug treatment, is then more difficult. The expenses related to drug treatment and spraying of insecticides must also be taken into consideration. Thus, although the epidemiological information available may be sufficient to plan a control programme, its implementation and continuation may be impeded by lack of adequate financial support.

2. NEW INFORMATION ON FILARIASIS SINCE 1966

In Brunei, the microfilarial rate was 1.5% in 3378 persons examined during the period June 1968 to March 1969. The survey was carried out in conjunction with the malaria project.

/In China (Taiwan), ...

In China (Taiwan), more efforts are being exerted to control filariasis since malaria has been eradicated.

The Medical Department of Fiji has started a mass treatment campaign based on a weekly dosage of diethylcarbamazine for six weeks followed by a monthly dosage for two years.

A few foci of W. bancrofti may still exist in southern Japan, but B. malayi has now almost disappeared.

Several new foci of B. malayi have recently been discovered in the southern parts of the Republic of Korea, in addition to Chejudo Island which has been known as an endemic area for many years. The Minister of Health and Social Affairs has made a plan to co-ordinate the surveys being undertaken and to start a control programme.

In Sabah, East Malaysia, a considerable number of foci of B. malayi were detected in 1967 and 1968.

In the Ryukyus, the overall microfilarial rate of 19% dropped to 3% at the end of 1967 after two years of control, and activities are now being extended.

Microfilarial surveys and the detection of mosquitoes for filarial larvae have continued or started in several countries and territories in the South Pacific. Detailed information is given in the report on the Second WHO/South Pacific Commission Joint Seminar on Filariasis held in Western Samoa in 1968.

3 WHO ASSISTANCE

3.1 WHO/South Pacific Commission Joint Seminar on Filariasis

This joint seminar was held in Western Samoa in August 1968. Two important conclusions reached were:

- (a) If, in follow-up surveys after a complete round of treatment, a significant number of positive persons, /either recurrences, ...

either recurrences, new infections or newly imported cases are observed, repeated mass treatment should be considered.

- (b) The recommendation of the WHO Expert Committee on Filariasis¹, that an adequate amount of diethyl-carbamazine should be administered in mass drug campaigns was endorsed. This should not be less than 72 mg/kg body weight.

3.2 French Polynesia

A WHO consultant visited French Polynesia between December 1967 and January 1968 to assist in the assessment of the long-term results of mass drug treatment, in determining the causes of persistent or renewed transmission, and to advise on future action. The assessment indicated that significant accomplishments had been achieved. However, after twelve to fifteen years of control in the rural districts of Tahiti, the microfilarial rates and densities are no lower and, in some instances, slightly higher, than they were three years after the mass drug control programme was begun. Measures require to be taken to improve this situation.

3.3 Malaysia

A WHO consultant was assigned to West Malaysia for a period of three months in the third quarter of 1968 to assist in compiling and analysing data on filariasis, particularly as regards the progress of survey and control work, and to advise on the further development of the programme, including its research aspects. It was discovered that the evidence now available is sufficient to show that the initial mass treatment of a population reduces filarial infection with B. malayi to /a low level. ...

¹ Wld Hlth Org. techn. Rep. Ser., 1966, 359

a low level. When initial treatment is supplemented by adequate follow-up surveys and mass treatment of those found infected, the reduction in the microfilarial rate has persisted for almost ten years. Follow-up surveys should be carried out now in any areas first treated four or more years ago and not examined since. The Government is taking the necessary steps to strengthen the programme.

3.4 Western Samoa

The objectives of the WHO-UNICEF assisted pilot control project, which started in 1965, was to determine the most feasible method or methods of controlling filariasis. Diethylcarbamazine was administered on a mass scale at a dosage of 5 mg/kg body weight, once a week for six weeks, followed by a monthly dose for twelve months, with a total of eighteen doses. The preliminary findings of the project were reviewed during the joint seminar in Apia. The reduction in microfilarial rate from 19% to 1.6% was impressive in spite of the fact that the majority of the population had taken only twelve doses of the drug.

A small-scale field trial on vector control was undertaken but no conclusive results could be obtained due to the short period of assignment of the WHO consultant in entomology.

It was recommended during the Seminar that, on the basis of experience gained in the South Pacific area, a second round of mass treatment should be undertaken in order to cure those who are liable to become recurrent positive cases, and therefore, to perpetuate transmission. A more practical schedule and dosage at 6 mg/kg body weight, once a month for twelve months, was recommended.

UNICEF has agreed to continue its assistance and is providing the necessary drugs for this second round of treatment.

The project is still far from complete. It is expected that with the assignment of a WHO epidemiologist and entomologist on a long-term basis and with UNICEF's continued assistance in the form of drugs, this
/second round of ...

second round of treatment plus vector control trials will produce satisfactory results. It is hoped that the experience obtained in this project will provide a pattern for the control of filariasis which can be adopted by other countries and territories in the South Pacific.

3.5 Fiji and Gilbert and Ellice Islands

The WHO epidemiologist assigned to the project in Western Samoa made a short visit to Fiji and the Gilbert and Ellice Islands in June 1969 to review and advise on filariasis survey and control work.

3.6 Fellowships

In 1968, a filariasis research worker from Malaysia visited some countries in the South-East Asia and Western Pacific Regions on a WHO fellowship.