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Provisional agenda item 16

PRESENT POSITION WITH REGARD TO EL TOR CHOLERA IN THE REGION

(Item proposed by the Government of Malaysia)

The Regional Director has the honour to submit to the sixteenth session of the Regional Committee the text of a communication from the Government of Malaysia.

Letter dated 19 April 1965 from the Government of Malaysia, received on 27 April 1965

"Sir,

I have the honour to refer to your circular memo (WP)R4/47/2 (16) dated 8th March, 1965 inviting proposals of items for the agenda of the 16th Session of the Regional Committee under Rule 8(g) of the Rules of Procedure of the Western Pacific Regional Committee, and would appreciate if the following item is placed on the provisional agenda:

'Discussion on the present position with regard to cholera El Tor in this Region'.

It is considered that this discussion would be a good follow-up of the last Cholera Seminar held in 1964.

I have the honour to be,
Sir,
Your obedient Servant,

(Mohamed Sanusi bin Baki)
Permanent Secretary, Ministry of Health
Malaysia."

/The Regional ...

The Regional Director has also the honour to present a report on recent developments which may of interest to the Committee (see Annex 1).

ANNEX 1

EL TOR CHOLERA IN THE REGION
1964-1965

1 INTRODUCTION

Since the occurrence of the El Tor cholera outbreaks in the Western Pacific Region in 1961, the disease has become either endemic in certain countries or has been introduced from others. It has become a problem not only of public health but also of economic importance in most countries and territories. Following the inter-regional seminar on cholera control, which was held in Manila from 12-18 November 1964, more information on the various aspects of the disease has become available. It is the intention of this working paper to summarize the major activities and studies made on various aspects of the disease during the past year or so. More comprehensive information, especially regarding the trend of research, will be found in other WHO publications and documents.[1, 2, 3]

2 STATUS OF CHOLERA OUTBREAK IN THE PAST YEARS

Table 1 shows that there was an increase not only in the number of cholera cases and deaths in 1964 but also in the number of countries and territories which became infected. The average mortality rate ranged roughly from 6 to 15 per cent. but varied from country to country. In 1965, however, only two countries had been infected up to 31 May 1965 (see attached table).

3 MAJOR ANTI-CHOLERA MEASURES CARRIED OUT IN VARIOUS COUNTRIES

Most countries and territories in the past year have continued to carry out mass cholera vaccination campaigns. Strict quarantine measures

/were imposed ...

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[1] WHO (1965) Wkly epidem. Rec., 16, 202

[2] WHO (1964-1965) Cholera Information (Unpublished working documents WHO/Cholera Information/1-4)

[3] Felsenfeld, O. (1965) Review of recent trends in research and control of cholera, Geneva (WHO, Unpublished report)

were imposed by several countries upon passengers and food arriving from infected areas. A few countries have embarked on programmes to improve environmental sanitation and promote health education. An active surveillance programme, consisting principally of bacteriological investigations for V. cholerae in the environment, including food, water and night-soil, and in diarrhoea cases, was introduced in Hong Kong in the absence of an outbreak.

4 VACCINE TRIALS, CARRIER PROBLEM AND VIABILITY OF VIBRIOS

In 1964, WHO established a cholera research team which has worked in collaboration with the Philippine and Japanese Governments. During the past year its work was mainly concerned with (a) the determination of the efficacy of cholera vaccine by controlled field trials, (b) the study of the carrier problem, (c) the viability of V. cholerae in the environment, especially in water, sewage and food.

4.1 Vaccine trials

These studies have not yet been fully completed, but the interim report on a six-month observation by the joint team indicates a protective efficacy of 26.2, 42.2 and 56 per cent. in the three vaccines tried. The Philippine Government intends to use an El Tor strain isolated locally for future vaccine studies. The results of its observations and experiences are awaited with keen interest.

4.2 Carrier problem

The recent observations of contact carrier rates (asymptomatic) as reported from China (Taiwan), Hong Kong, Philippines and Dacca (Pakistan) ranged from 6 to 20 per cent. The joint team reported the high rate of 21.7 per cent. among household contacts. The importance of the role of food and asymptomatic excretors in the transmission of cholera was described by Teng,[1] who reported three instances where bacteriologically positive food handlers were associated with cholera patients who took food from these premises. In one of these instances, he found 32 per cent. of over 100 food handlers in one restaurant to be asymptomatic vibrio excretors, and they gave rise to seventeen clinical cholera cases.

4.3 Viabilities of cholera vibrios

With food, fruits and utensils artificially contaminated with a mixture of cholera and El Tor cholera vibrios, mucin and human feces,

/Felsenfeld ...

[1] Presented during the Symposium on Cholera Research, Hawaii, Honolulu, 24-29 January 1965 (Report on the Proceedings now in preparation).

Felsenfeld[1] found none of the vibrios survived on acid fruits and acid foods for more than a few hours. The survival time was longer in the icebox than at room temperature. Cooked starchy foods, milk and milk products and the inside of watermelons permitted the survival of vibrios for several weeks. Pesigan[2] also reported cholera vibrio that could survive in common Filipino foods, either raw or cooked, generally from two to five days at room temperature. The El Tor vibrios were able to survive not more than one hour in chlorinated water, but in unchlorinated water they can survive for thirteen days at room temperature and sixty days at refrigerator temperature.

5 CLINICAL ASPECTS

Intravenous infusion with fluids and electrolytes remains the most effective method of treatment in cholera. Carpenter et al reported the addition of tetracycline groups of antibiotics as advantageous as it caused the more rapid disappearance of the vibrios from the gut and shortened the duration of diarrhoea.[3] Its possible use in the control of asymptomatic cases (carrier) deserves to be explored.

6 LABORATORY DIAGNOSIS

The routine isolation of V. cholerae from rice-water stool of a typical cholera patient is easy, but from an abortive, mild, convalescent case or a carrier it is often difficult. In the latter case, the use of an enrichment medium followed by plating on selective medium is necessary. Oblique light microscopy of colonies, fluorescent antibody techniques on slide specimens and darkfield examination (with serologic immobilization) of stools, are newer and more rapid procedures employed with success by several investigators. These diagnostic procedures have to be followed by regular culturing and serological methods for verification. Phage-typing, according to the Mukerjee method, is being continued with a view to differentiating between classical and El Tor strains and to a possible tracing of the spread of the disease.

7 EPIDEMIOLOGY AND CONTROL

7.1 Epidemiology

Reports have indicated that water may serve as a simple vehicle for transmitting cholera infection but its transmissibility is influenced by personal and community hygiene, customs and practices in the preparation

/of food ...

[1-3] Presented during the Symposium on Cholera Research, Hawaii, Honolulu, 24-29 January 1965 (Report on the Proceedings now in preparation).

of food, use of utensils and ways of disposal of human excreta. It was noted that, with a few exceptions, the outbreaks of cholera in the Region since 1961 have been due to the El Tor cholera strains and this continued to be so in 1964 and 1965.

7.2 Control

The results of controlled field trials on cholera obtained so far indicate that further studies are needed as regards the choice of strain and method of preparation, in order to achieve more effective protection with cholera vaccine. To date the control of cholera still depends on a well-organized national programme and the effective implementation of more than one measure, including the rapid detection and proper treatment of cases, detection and control of carriers, disinfection of contaminated environment, improvement in sanitation, mass vaccination and health education promotion.

8 SCIENTIFIC MEETINGS, SEMINARS, AND TRAINING COURSES

The following is a list of meetings wherein the subject of cholera was considered:

Scientific Group Meeting - International Cholera Research, Manila, 2-6 November 1964, WHO

Seminar on Cholera Control, 12-18 November 1964, Manila, WHO

Seminar on the Control of Communicable Diseases, Manila, 19-30 November 1964, WHO

Symposium on Cholera Research, Honolulu, Hawaii, 24-29 January 1965 (United States National Institute of Health) - International

Cholera Control Training Course, 10 May to 8 June 1965, Calcutta, WHO