

CHOLERA IN WEST AFRICA

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In 1968 the El Tor variant of the cholera vibrio started on a long journey. From its home in India and Pakistan it moved to Indonesia and then across to Iran whence it entered the Soviet Union. Middle East countries were then attacked, including Egypt, but for a while the authorities there denied that the disease had reached that country and insisted that the cases which occurred were those of "summer diarrhoea".

In August 1970 El Tor cholera appeared in Guinea, the first time that it had been diagnosed south of the Sahara. Again, there was great reluctance to accept facts, and newspaper reports and eye witness accounts were branded as part of an "imperialist plot" to discredit the country. As a result international help was late in coming and control efforts were badly organised.

From Guinea the disease spread to Senegal, Mali, Sierra Leone, the Ivory Coast, Ghana, Niger and Liberia and towards November 1970 it entered Nigeria where it quickly established itself in Lagos and Ibadan before spreading in irregular fashion over the country. The big commercial city of Kano in the extreme north was reached in February 1971 with an outbreak of epidemic proportions and numerous unrecorded deaths. It may have come up from the south or down along the trade routes from Niger. But however it happened, the disease hit Kano at the time of the Hajj or pilgrimage to Mecca when the international airport is virtually taken over by the thousands of pilgrims and their relatives who then wait patiently for their return days or weeks later. Sanitary provision is utterly inadequate and conditions are ideal for the spread of intestinal disease.

After a few months the incidence of the disease in Nigeria decreased, but in

July 1971 there was a sudden flare-up in the villages near the university town of Zaria and several of these were abandoned. To date 18 countries, mainly in West and Central Africa but some also in East Africa, have reported the disease.

Here are some figures: 35,000 cases have been reported in the first six months of this year (6,000 in Nigeria) with 6,300 deaths (W.H.O. 1971; U.S. Pub. Hlth. Serv. Smallpox eradication programme 1971). 3,000 cases occurred in black Africa in the first week in September, including 2,500 in Nigeria and 3 (the first recorded) in the Gambia (Bruce-Chwatt L.J., 1971). All these figures are, of course, rough ones for obvious reasons, and it has been estimated that during 1971 there must have been not less than one million cases in tropical Africa alone (Bruce-Chwatt L.J., 1971).

El Tor cholera is peculiar in that the disease is relatively mild and that incubation and contact carriers are common. This, coupled with the poor sanitary conditions which are the rule in black Africa, makes it almost certain that the disease will not be eradicated for many years, at least from the big towns like Lagos, Kano and Accra.

Clinically the disease runs through the well known stages of evacuation, collapse and reaction or death. It strikes with great suddenness and manifests itself by the "painless passage of pints of pale fluid" (Adams and Maegraith, 1966).

The visitation has been energetically treated by most Governments as far as their resources allowed. Towns and villages have been cleaned up, flies attacked and health propaganda diffused. The victims themselves, if they were lucky to fall ill within reach of a hospital, were nursed in emergency wards often in the open under a temporary palm roof. The beds were

simple structures made of two pieces of canvas slung on a wooden trellis with a gap between for the buttocks, beneath which was a pail with disinfectant. The extreme dehydration was treated by giving intravenous fluids, mainly saline, for 1 or 2 days and amounts of 18 or 20 litres were often reached. After that, oral fluids were sufficient. Cholera is, however, not a hospital disease but a *disease of the railway station and of the wayside* and the important point is to pour fluid into the veins, even if it is only boiled river water to which salt is added. The moral is: do not be too fussy about the nature of the fluid.

When the vomiting stopped (and in Nigeria it was never a big problem) tetracycline was often given by mouth. Diagnosis was confirmed in the bigger cities by examination and culture of rectal swabs.

Anti-cholera vaccine flown in from all over the world has been widely used to protect the population but its help in controlling the spread of the disease has not been clear and it is generally considered that inoculations against cholera, which have to be repeated at least every six

months, play a relatively small part in personal protection and hence in controlling or stopping epidemics.

As regards prevention, this is a matter of sanitary control and supervision of ships and aircraft coming from infected countries and of isolation of suspected cases. But this should be thorough. I myself came to Malta on two occasions recently having left Kano a few hours previously. There was no health check at the airport, presumably because the plane had flown in from Rome.

To sum up: a major international health hazard is developing before our eyes. We may be underestimating its importance (Brit. Med. J., 1971).

References

- ADAMS and MAEGRAITH, *Clinical Tropical Diseases*, ELBS Edition, 1966, p. 67
 Brit. Med. J. 3 July 1971 p. 1
 BRUCE CHWATT L.J., Brit. Med. J. 3, 532.
 U.S. Public Health Service, Centre for disease control, Smallpox Eradication Programme Report, 1971, 5
 West Africa No. 2832, p. 1123
 W.H.O. Press Release No. 28, June 1971