

## FIELD TRIAL OF CHOLERA VACCINE IN EAST PAKISTAN

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Since the isolation of the cholera vibrio by Koch in 1883-84, attempts have been made to develop a vaccine for immunization of man against cholera. Ferran (1885) was first to introduce a vaccine with living vibrios and Haffkine in 1894 developed his vaccine with attenuated cholera organisms which has been employed since for immunization of man against cholera. Continued attempts are also being made not only to develop a more effective and dependable vaccine, but also to evaluate its effectiveness in man in the field. Many observations have been made in the past by different workers at different places and under different socio-environmental conditions which, however, did not fully satisfy the principles laid down by Greenwood and Yule for evaluation of vaccine in controlled field trials. As a result, different authors reported contradictory results with the same kind of vaccine. This created confusion among other workers.

Accordingly, an attempt was made by the Pakistan-SEATO Cholera Research Laboratory to evaluate the effectiveness of cholera vaccine in an endemic area in rural East Pakistan in close conformity with the principles prescribed by Greenwood and Yule as far as was possible under rural conditions.

In their first year's report on the observations of the Field Trial of the cholera vaccine, the authors opined that cholera vaccine could be an effective prophylactic against cholera (Lancet, 27 Feb. 1965). They, however, admitted that the duration of the effectiveness of the vaccine remained unknown and that surveillance was being maintained to answer that question. They also warned that the inference cannot be made that all cholera vaccines will afford similar protection.

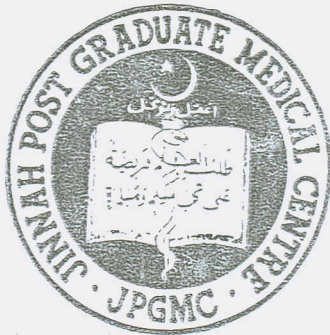
In the present paper, the results of further observations on the effect of immunization against cholera are presented. The study reveals that the vaccine used in the trial in East Pakistan offered an effectiveness to the extent of 78% during the first year, 59% during the second year and 38% during the third year—a reduction of 19% in one year and 40% in two years. As it is not possible to compare the results of this trial with the results of field trials done elsewhere under

identical conditions, another group of 35 villages in the same area, with almost the same age, sex, racial, social and economic class were brought under the trial and subjected to identical observations. The result of observations in the second group of villages confirms the result of observation obtained in the first group of villages.

It is unfortunate that the results obtained in this trial cannot be compared with the results of field trials on cholera vaccine recently done elsewhere, such as in Calcutta and in the Philippines, as the vaccine and dosages used, the socio-environmental conditions of the people immunized and the technique and the methods for collection of data adopted were so different from one another. It is no surprise that the observations showed different results with the same kind of vaccine. It is felt that the same standard of technique and method of evaluation should be adopted for field trials of cholera vaccine to assess its real value.

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