

Abstract of Various Papers

CHOLERA VACCINE STUDIES IN RURAL EAST PAKISTAN

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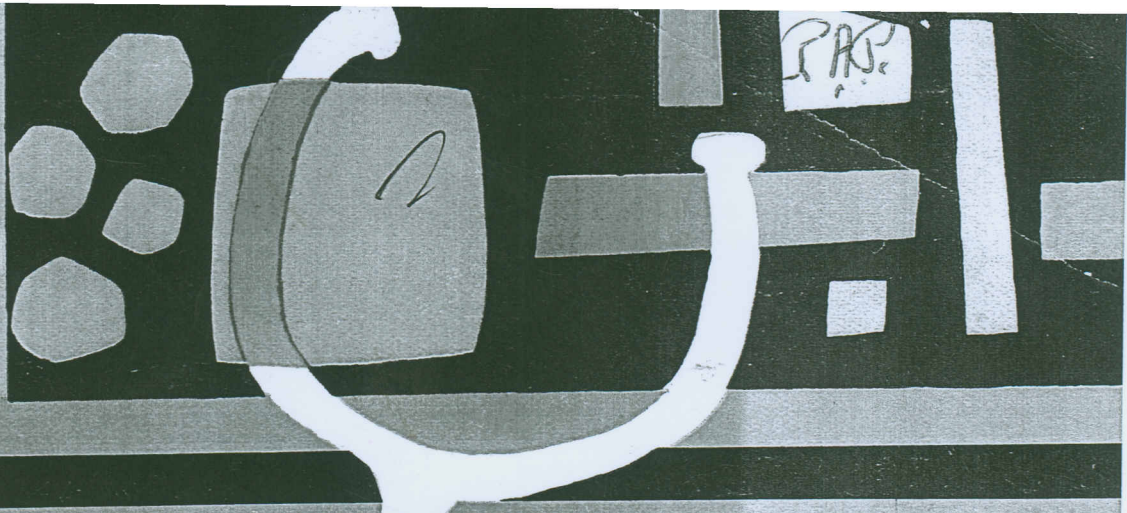
A controlled cholera vaccine field trial was carried out in rural East Pakistan during the 1966-67 cholera season. A commercial cholera vaccine was tested in 40,000 children aged three months to fourteen years in a one-and two-dose schedule. In the cholera season extending for eight months following immunization, a single dose produced an overall protection of 46% ; two doses at an interval of one month provided 64% protection. The single dose was virtually ineffective in children under five years, but provided significant protection in older children. The enhanced effect of the two-dose schedule was primarily due to the boosting of protection in children under age five. The duration of significant protection, even with the two-dose schedule, did not appear to extend beyond the first three months of the eight month cholera season.

Random sample serological surveys were taken prior to inoculation and three months and six months following inoculation. These surveys demonstrated a rise in the vibriocidal titers of the vaccinated children by three months after inoculation, and a fall by six months. The antibody response to two doses of cholera vaccine was better than to a single dose in children under 5 years. In children 5-14 years, antibody response was similar for both injection schedules. Since the majority of the older children had vibriocidal antibodies prior to inoculation, the data suggests that the single dose acted as a booster, and this was not enhanced by a second injection.

Serological studies of the hospitalized cholera cases indicated that the majority of these cases had low vibriocidal titers on admission to the hospital. By comparing the distribution of admission titers of the hospitalized cases to the distribution of titers found in the population survey it was possible to demonstrate a progressive reduction in the cholera case rate for the population with high levels of vibriocidal antibody.

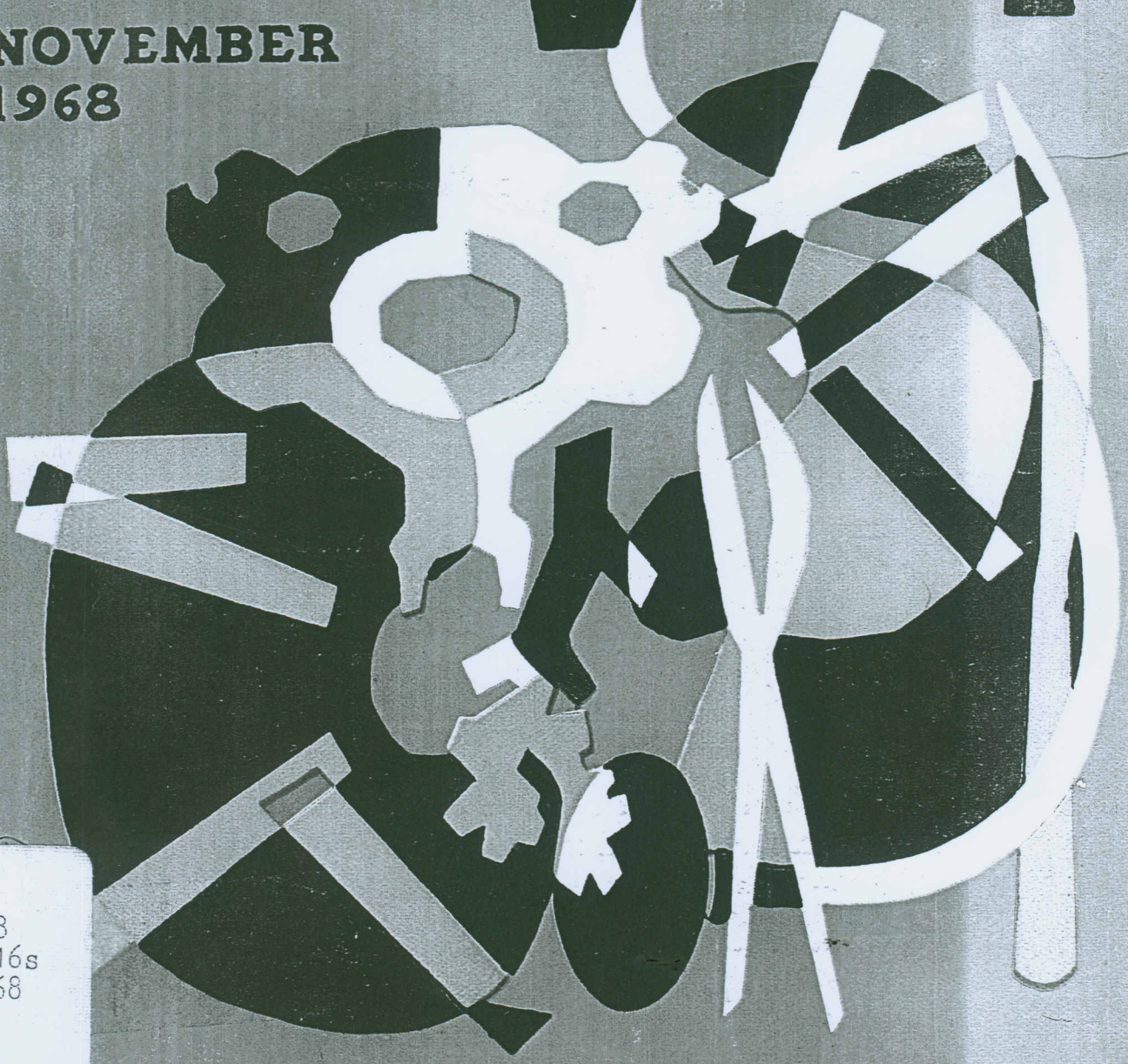
The sample surveys from the control population revealed a rise in titer following the peak of the cholera season, and a fall three months later. The data suggests that the infection rate with *V. cholerae* for the 10,000 children in the control group during the cholera season may have been as high as 27%, while the clinical case rate was only 0.26%.

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