

Vaccination with the CHAT Strain of Type 1 Attenuated Poliomyelitis Virus in Léopoldville, Belgian Congo*

1. Description of the City, its History of Poliomyelitis, and the Plan of the Vaccination Campaign

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A trial of the CHAT, type 1, attenuated poliovirus strain of Koprowski was begun in August 1958 in Léopoldville, a city of 350 000 people, and possessing modern medical facilities, including an institute of public health.

Paralytic poliomyelitis is endemic in the city; since 1951 there has been an average annual incidence of 63 cases, and a rate of 19.4 cases per 100 000 inhabitants. More than 80% of the cases have occurred in African children less than 3 years old. Consequently, a plan to vaccinate African infants and children was formulated and put into operation.

Vaccination was performed by squirting virus into the mouths of the children at medical dispensaries or special clinics. The innocuity of the vaccine was checked by follow-up visits to the homes of a large number of children one and two weeks after virus feeding. Blood specimens were taken before and after virus administration to determine the initial susceptibility of the population and their response to live-virus vaccination. The results of vaccination are presented in the following paper.

In 1957 and 1958, Courtois and co-workers conducted the first mass vaccination trial with attenuated living poliovirus (Courtois et al., 1958), using the type 1 CHAT strain of Koprowski (1957). More than 250 000 persons in the Belgian Congo and Ruanda-Urundi were vaccinated without untoward reactions. The results of this trial were of great importance to those responsible for public health in Léopoldville, the largest city in the Belgian Congo.

Since the collection of accurate morbidity data, beginning in 1951, it had become clear that poliomyelitis was endemic and epidemic in the city. The average annual incidence of paralytic poliomyelitis among African residents of Léopoldville from 1951 through July 1958 was 18.8 cases per 100 000 inhabitants, or about 58 cases per year.

In view of the existing problem, it was decided to vaccinate the susceptible African population against

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