CHOLERA PROPHYLAXIS IN THE DUTCH EAST INDIES.

Through the courtesy of Dr. Kiewiet de Jonge, the Local Secretary of the Society in Java, we are enabled to publish the following interesting statistics of the results of anti-cholera vaccination which have been obtained by Dr. Nyland, the Director of the Institut Pasteur and Vaccine Station at Batavia.

The preventive inoculations were carried out in districts where cholera is endemic, and where the disease, at certain seasons of the year, is extremely virulent and fatal. The system of work was almost entirely on a voluntary basis, and, except in the case of inmates of houses where an outbreak of cholera had occurred, no pressure was exercised on the people to undergo the treatment. The natives, however, readily availed themselves of the new prophylactic measure, and expressed themselves as highly gratified at its success.

The method of preparing the vaccine was that of Kolle; that is to say, an emulsion of a culture of the cholera bacillus on agar was made in normal salt solution, and this was afterwards heated at 60° C. for one hour. After it had been ascertained to be sterile, a preservative was added, and the emulsion was administered in doses of 1 cc. It was found that there was no increase of immunity to cholera for five days after the vaccination, but that, on the contrary, resistance to infection was slightly lowered; after that period, however, there was a marked diminution both in the case incidence and in the fatality of the disease.

The following tables illustrate both points:—

TABLE A (NATIVES).

| Samarang. | • . | <i>a</i> 1 | | • • • • | ~ | | |
|-----------------|-----|---------------------------------|-----|---------|------------------------------|-----|--|
| Vaccinated | | Cholera Morbidity per mille. | | | Cholera Mortality per mille. | | |
| 8,340 persons | ••• | | 0.3 | ••• | ••• | 0.1 | |
| Non-vaccinated- | | | | | | | |
| 85,142 persons | | | 6.2 | ••• | ••• | 5.5 | |

TABLE A-continued.

| Singaradja. | (Th. al | Manhi | 1311 | Chal | ovo Montality |
|-----------------|------------------------------|-------|---------------------------------|-------|---------------|
| Vaccinated— | Cholera Morbidity per mille. | | Cholera Mortality per mille. | | |
| 4,092 persons | ••• | 1.0 | | ••• | |
| Non-vaccinated- | | | | | |
| 115,877 persons | ••• | 6.9 | • | ••• | 7.6 |
| Den Pasar. | | | | | |
| Vaccinated— | | | | | |
| 1,733 persons | | 1.1 | • • • | ••• | 1.1 |
| Non-vaccinated— | | | | | |
| 154,842 persons | ••• | 2.9 | ••• | | 2.7 |
| Selong. | | | | | |
| Vaccinated— | | | | | |
| 4,876 persons | ••• | 0.5 | ••• | | |
| Non-vaccinated— | | | | | |
| 154,000 persons | ••• | 5.8 | ••• | • • • | 3.7 |

EUROPEANS (BATAVIA).

The population of Batavia amounts to 10,477 Europeans. During the period from August 2nd, 1910, to June 30th, 1911, 7,279 persons were inoculated at the vaccination station under the supervision of Dr. Nyland; of these 867 were revaccinations and 6,412 were vaccinated for the first time. Besides the inoculations at the Institut Pasteur, the doctors in the town vaccinated at least 1,200 persons, so that not fewer than 8,000 Europeans underwent the treatment.

Omitting infections which occurred during the first five days after the operation, only three cases of cholera (two of which were fatal) were observed among those inoculated, whilst of 2,500 non-vaccinated persons 112 contracted cholera in the experimental period (eleven months), and 56 of them died. In Samarang, a hotbed of cholera, not a single case occurred amongst the inoculated Europeans, and in Soerakarta also there were no fatalities.

TABLE B (EUROPEANS).

| Batavia. | | | | | | | |
|----------------|-----|------------------------------|------|--|---------------------------------|------|--|
| Vaccinated— | | Cholera Morbidity per mille. | | | Cholera Mortality per mille. | | |
| 8,000 persons | ••• | | 0.3 | | • • • • | 0.2 | |
| Non-vaccinated | | | | | | | |
| 2,500 persons | | ••• | 44.0 | | ••• | 22.0 | |

TABLE B-continued.

| Samarang. Vaccinated— | | Cholera Morbidity per mille. | | | | Cholera Mortality per mille. | | |
|-----------------------|-------|------------------------------|-----------|-----|-----|------------------------------|--|--|
| 2,450 persons | | | per mine. | | | per mme. | | |
| Non-vaccinated— | ••• | ••• | | ••• | ••• | | | |
| 2,676 persons | ••• | ••• | 14.2 | ••• | ••• | 5 ·2 | | |
| Soerakarta. | | | | | | | | |
| Vaccinated— | | | | | | | | |
| 1,449 persons | • • • | | 3.2 | ••• | | | | |
| Non-vaccinated- | | | | • | | | | |
| 827 persons | ••• | ••• | 15.7 | ••• | ••• | 12.0 | | |

In the village of Tengalbadan, during a severe outbreak of cholera, vaccination was commenced on a day in which there had been five deaths from the disease. The whole of the inhabitants, including old people and children, were vaccinated. With the exception of a single instance, which occurred the following day, there were no further cases of cholera.

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