

NOTES ON TWO CASES OF SUDDEN DEATH IN APRIL, 1902.

The following cases were investigated owing to their occurrence coincidently with the appearance of the plague case in Auckland.

CASE 1.—J. B., AT RICHMOND, GREY LYNN.

On the night of 22nd April Inspector Cullen reported to me that a case of sudden death had occurred at Richmond, near the house of the plague patient V., and that a *post-mortem* would be held next day. Through the courtesy of Mr. Gresham, District Coroner, I was present at the *post-mortem*. The general conditions were not such as to lead one to suspect plague. There were no hemorrhages; spleen was small and rather tough in texture. The lungs showed chronic venous congestion and old-standing pleuritic adhesions; right heart somewhat dilated.

I obtained pipettes of blood and spleen tissues. In the blood no organisms were detected. Spleen: Smears showed under the microscope a number of short coccobacilli—not, however, with bipolar staining. Streak cultures of agar in twenty-four hours showed an abundant growth almost colourless, consisting of the same short oval bacilli seen in the smears. It did not stain by Gram's method. There was, however, no bipolar staining, and it was shorter than the *B. pestis*. Moreover, in hanging-drop culture motion was marked, while on potato an abundant growth was present in twenty-four hours resembling *B. coli*. A guinea-pig inoculated in the groin with part of the agar culture showed no evil effects. I consider this bacillus to be the *B. coli*.

CASE 2.

A man brought into the Hospital on the evening of the 26th April died the following day with somewhat vague symptoms and history.

An inquest was held on 28th April, at which I attended. The most marked feature was the advanced fatty degeneration in almost all the organs, especially liver and kidneys. Pipettes of spleen-tissue were examined, but no organisms were detected by direct examination or by culture.

It was afterwards shown to be probable that death was caused by phosphorus-poisoning.

APPENDIX B.

REPORTS OF DISTRICT HEALTH OFFICERS, ETC.

AUCKLAND DISTRICT.

Dr. Mason, Chief Health Officer, Wellington.

VITAL STATISTICS FOR THE AUCKLAND DISTRICT.

The Auckland Health District is large and straggling, being about 360 miles in length, and varying in width from 180 to three or four miles. The total population is 175,000, exclusive of Maoris, who number perhaps 20,000, and are by no means to be ignored as an influence on the health of the district. Auckland City and suburbs have a population of 51,000, the city itself contributing 34,000. As regards density of population, the census of 1901 showed 6·83 per cent. per square mile, exclusive of Maoris.

The large sea-coast line tends to humidity of climate, and also renders difficult the administration of public health, making the means of communication imperfect, and resulting in isolation of certain districts. It is to be regretted that the statistics available deal only with the larger centres of population, and that no account can be given of the general health of the district. Records for a few years relating to Auckland City and some of the larger suburbs are to be found in the Year-book, but except for Thames Borough no other portion of the Auckland Province is mentioned; thus, over the larger area we are shut off from that valuable index of the sanitary state of the district—the birth and death rates.

Birth-rate.

The general birth-rate for the colony is 25·6 per thousand, being the lowest of any of the Australasian Colonies, and considerably under that for England and Wales. In Auckland and suburbs it is somewhat higher than any of the other large centres, being 27·83.

Death-rate.

The general death-rate for New Zealand is lower than any other colony, being 9·43 per thousand of the population, or nearly half that of England and Wales.

I cannot find any record for the whole Auckland District, but the Registrar-General's returns give full particulars for the four chief cities and their immediate suburbs, and the following comparisons made from these are not without interest. Taking the last three years, 1899 to 1901, it appears that the death-rate in Auckland has been somewhat higher than in the other centres.

Death-rate in the Four Centres.

			Auckland and Suburbs.	City alone.	Average of Four Centres.
1899	...	...	12·00	13·00	11·50
1900	...	...	11·81	13·60	10·71
1901	...	...	11·80	13·10	11·50