The early signs and symptoms of this disease are not pathognomic of meningitis, but are common to those of an ordinary "cold in the head," influenza, or measles. There is at first a catarrh of throat and nose, or dry cough, and a huskiness of voice. The onset of the disease itself is sudden, being characterized by headaches, vomiting, stiffness of muscles of neck, back, and legs. Maniacal excitement and delirium sometimes occur, and towards the end the fatal case becomes unconscious and dies in a state of coma. Outside the human body the meningococcus, the organism of this disease, has a very short life, and therefore clothes, mattresses, and blankets are not likely to be agents of infection. But—and this is all-important in dealing with this dangerous disease—the organism can be carried in the throat for long periods, and any person carrying this organism in his throat is known as a "carrier." A carrier can infect those who come in contact with him. Many observers have noted that apparently healthy persons can be carriers and spread the disease to those who come in contact with them. This makes the task of controlling the infection and spread of this disease an extraordinary difficult one. Also, a man sick of meningitis may harbour the meningococcus in his throat for some time after the acute stage has passed, and still continue to be a source of infection. It is the isolation and watching of these carriers, perhaps freely circulating amongst the general population, that presents such great difficulties. There seems to be no doubt, knowing that the organism of cerebro-spinal fever cannot lead a saprophytic life outside the body, and that it is peculiarly susceptible to cold, and has never been isolated from dust, air, or fomites, that it has been introduced into Trentham Camp by a "carrier."

The Trentham Camp site has certainly had nothing whatever to do with the appearance of cerebro-spinal meningitis amongst the troops quartered there. Neither in the air above, the earth beneath, or the water under the earth at Trentham did the meningococcus live.

New Zealand is not alone in having had this unfortunate visitation. This form of meningitis has appeared in the camps of England, France, Belgium, Servia, and Australia during the present year and towards the end of last year.

The question of "carriers" of infection in this disease is all-important, and in this connection it is of interest to read the following notes of Dr. Champtaloup, Professor of Bacteriology and Public Health at Otago University, and Dr. Bowie, Clinical Registrar at Otago University. These extracts are taken from an article which appeared in the *New Zealand Medical Journal*, August, 1915:—

"(1.) Seeing that so many carriers have been demonstrated among troopers on leave in Dunedin, we assume that a relatively equal proportion of trooper carriers are scattered throughout the Dominion.

"(2.) As the carrier state has in all probability existed for some time previous to the discovery of this infection, and troopers on leave have mixed with the civil population, a number of the latter must now be in the carrier stage.

"(3.) The protean nature of the disease has been well exemplified in the New Zealand outbreak, and if our assumption in the previous paragraph is correct, we suggest that some of the cases recorded as measles and influenza, both in military and in civil practice, have been mild infections due to the meningococcus, in which the meninges have not necessarily been attacked.

"(4.) We would go to the length of stating that the present strain of meningococcus is one of low virulence, so that the majority of those attacked from it suffer from its 'catarrhal' or 'influenzal' manifestations only, although in the unfortunate minority, from natural disposition or previous illness, the disease has assumed a meningeal or septicæmic type.

"(5.) In respect of attenuated virulence the present outbreak has certain features comparable with the recent epidemic of smallpox.

"(6.) As a result of our experience we would suggest that rigorous and efficient prophylactic treatment should extend over a period of at least two weeks, and that this period should be extended until all symptoms of relaxed or sore throat have disappeared, when, for geographical reasons, no laboratory investigation of the naspharyx is possible."

In reviewing the origin and course of this or any future epidemic it is perhaps useful to remember, as history shows, that in times of crisis and of great national anxieties and excitement epidemic illnesses are prone to appear and assume large proportions.

The mental state of an individual patient profoundly affects for good or evil the physical ailment that may be present, and what is true of the individual is broadly true of the nation.

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