

This method was used at first on desperate cases only and, judging by them, the results were not encouraging. In a series of 14 cases in which the serum was given as soon as practicable after the diagnosis of influenza-pneumonia was made but one died and the courses of the others were short.

The fact that many apparently desperate cases under symptomatic or digitalis therapy had crises or sudden changes for the better made it difficult to properly value the intravenous methods.

Vaccines: The army influenza vaccine had not reached us at the time of the epidemic. Sherman's No. 38 mixed vaccine was used in the treatment of a limited number of cases and was believed by Major Arthur Dare, who directed its use, to be of benefit. A similar mixed commercial vaccine was used on several hundred influenza cases in the hope of preventing the pneumonia sequel, but the burden of work prevented careful statistical study, and the consensus of opinion was that no demonstrable benefit resulted.

It is agreed by all that absolute rest in bed, fresh air, plentiful use of water and nourishing, simple diet are the essentials of treatment. Those on porches did better than those in wards; patients who had been on porches and moved in asked to be taken out again. Great caution should be used in letting patients up or undertaking work, as myocardial weakness often results. It was deemed wise to hold the patients in the hospital until the blood count fell to 10,000, as higher counts had indicated pus in some cases, which it was not possible to diagnose until a considerable time had elapsed.

Our judgment, based on our experience, is that the problem for the future is the discovery of some agent, along serum or vaccine lines, for the treatment and more particularly the prevention of the infection. Preceding this the offending organism must be identified definitely, as we believe now is not the case.

LABORATORY REPORT ON EPIDEMIC PNEUMONIA,

CAMP DODGE, IOWA.

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DURING the week preceding the sudden appearance of the epidemic of September 28, 1918, three distinct outbreaks of an infectious nature occurred in widely separated sections of the Base Hospital at Camp Dodge. Pharyngeal cultures from these cases showed *Streptococcus hemolyticus* and *Bacillus influenzae* present in unusually large numbers. Admissions during this period increased moderately in number and an unmistakable but not alarming number of acute nasorespiratory disturbances, not unlike similar clinical conditions of the preceding month, gave warning of impending trouble.

found at autopsy. A moderate to a high leukocytosis indicated a secondary sepsis; 93 of 108 charted pneumonia cases without empyema showed evidence of sepsis.

The reason for the marked cyanosis, observed clinically, was found to be extensive lung consolidation, which with the large amount of coagulable material found in the alveoli surrounding scattered areas of consolidation must have made proper aëration of the blood extremely difficult. The three cases of sudden death reported not only point out the extremes of the pathological process but are also of medicolegal importance.

CLINICAL ASPECTS OF PNEUMONIA FOLLOWING INFLUENZA, CAMP DODGE, IOWA, 1918.

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1. THE statements and conclusions of this report are based on a study of the charts of 274 patients and on personal experience during the epidemic. All the patients included in the formal review of 274 charts were admitted to the hospital in the first five days of the epidemic; we feel that this ensures a study of the typical cases, as the atypical cases are more likely to be seen as an epidemic subsides.

Of the 274 patients whose histories were studied 212 were white, 61 negro and 1 Indian; all were admitted to the hospital with influenza, except 4; in these 4 the history pointed to a prior influenza, but pneumonia was present on admission.

The symptoms and course of the influenza were first studied. The onset is almost always sudden; in 100 charts the definite statement of a sudden onset is made; in 24 the onset is said to have been gradual; but among these 24 many were found in whom it appeared that the patient had not been quite well for a while, had suffered with a "cold," for instance, yet the definite symptoms of influenza had appeared quite suddenly: moreover, even the charts that contained no statement as to the abruptness of onset usually stated the history in a way to warrant the inference of suddenness in onset. Finally, of the 274 patients only 30 stated that they had been sick more than four days; 35 were admitted to the hospital within twenty-four hours of the first symptoms, 111 on the second day, 45 on the third and 17 on the fourth day.

Headache was the most common complaint; it was mentioned 206 times, often being spoken of as severe and the most distressing symptom. Cough was complained of in 194 cases; 3 times it was described as dry, 3 times as associated with a mucous or mucopurulent sputum; in 61 cases the cough was characterized as slight;