

SCIENTIFIC PROCEEDINGS

ABSTRACTS OF COMMUNICATIONS.

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President Calkins in the Chair.

51 (1426)

The influenza epidemic of 1918 in the American Expeditionary Forces in France and England¹

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A disease, clinically recognized as influenza, became epidemic in the American Expeditionary Forces in France in May, 1918. Since August, 1918, the epidemic, previously mild, has assumed a more malignant character, often leading to a fatal broncho-pneumonia. In the fatal cases the lungs have presented a picture of malignant coalescing broncho-pneumonia frequently associated with hemorrhagic tracheo-bronchitis. The changes have varied considerably according to chronicity of the disease and the nature of the secondary infections. Influenza bacilli in large numbers have been found in the bronchi in fulminant cases. At most of the autopsies a mixture of bacteria was found in the respiratory tract, including pneumococci of various types, streptococci and sometimes staphylococci. Blood cultures during life were usually negative but showed pneumococci or streptococci in some cases.

Over work, exposure to cold and wet, inadequate nourishment, poor ventilation, inhalation of dust and general physical discomfort have diminished the natural resistance to the disease. The contagion spreads rapidly by distribution in the secretions of the nose and mouth, not only of the sick but of many other in-

¹ Publication authorized by the Surgeon General, U. S. Army. The full paper will be published elsewhere.

fected persons not suffering from the disease. The primary epidemic disease of the autumn is considered identical with that of the early summer, with the added complication of bronchopneumonia in the colder weather. The bacillus of Pfeiffer is the apparent cause of the epidemic disease but its causal relationship is not conclusively proved. Rest in bed, warmth and bodily comfort, promptly enforced at the outset, are the most important elements in the treatment. Prophylaxis includes avoidance of contagion and general hygienic measures to enhance natural resistance and retain it at a high level. Vaccines are of questionable value.

Influenza has been endemic in France for many years, and during the war this infection appears to have assumed a more virulent type in this country, small epidemics having been recognized in the British Army in the winter of 1916-17 and in the fall of 1917. American troops in France suffered very much from influenza, especially in the winter of 1917-18, the disease apparently being the same as that which became epidemic in 1918. The evidence suggests that the epidemic of influenza originated in France from the endemic influenza widely prevalent there. It is probable that the large numbers of American soldiers in France, subjected to strange environmental conditions, furnished a fertile soil for the propagation of the disease. The epidemic was evidently carried by ships from Europe to the United States and to South Africa.

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The disinfectant action of glycerol in varying concentrations.

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Previous studies of the disinfectant action of glycerol have for the most part been conducted in relation to its supposed destructive action on invading organisms in vaccine virus. M. J. Rosenau made an exhaustive investigation of the subject in 1903 and concluded that "Glycerol has distinct but very feeble germicidal and