

usually very sudden, some cases being recorded of collapse on duty, the latter class being almost invariably of a severe toxic type.

Course of the Disease.—On admission temperature averaged 100 to 103, the pulse being usually remarkably slow (76 to 84) and bearing no proper relationship to the temperature. About the third day the latter frequently showed a remission to normal or below normal, this change being frequently preceded by epistaxis. About the fourth or fifth day complications were usually initiated by a rise in temperature, cough, and expectoration—sputum being red, pink, or salmon colour, totally unlike the sputum of a typical lobar pneumonia, and becoming later on very copious and purulent, with streaks and spots of blood in it. Frequently, about the fifth day of the disease, a marked cyanosis developed in a number of cases—these usually ended fatally. At this stage respirations were slightly increased, but there was not the distress usual with lobar pneumonia of this degree.

Physical Signs.—Physical signs varied much in character. Lung complications in a more or less degree were present in some 75 per cent. of cases, and were of all degrees of severity. Impaired resonance, dullness on percussion, increased vocal resonance and fremitus, and crepitations were present in practically all cases of lung complications, with coarse râles and, later, high-pitched bronchial breathing and bronchophony similar to lobar pneumonia. Some cases were like a definite pneumonia, others like a patchy pneumonia.

Crisis and False Crisis.—Many cases ended by crisis, but in a large number crisis was false and the temperature often fell considerably below normal, cyanosis and dyspnoea increased, the patients becoming rapidly worse. A few cases remained dormant and then improved after a few days, but these cases were uncommon.

Lysis.—The temperature fell by lysis in a fair proportion of cases, and these generally made a fair recovery.

Complications.—(1.) Cyanosis: Cyanosis varied in degree, but was generally very dark, dusky or purple, and noticeable over the whole face and extremities.

(2.) Delirium: In the initial stages delirium was not common, but if present usually subsided in twenty-four hours. In those cases where delirium supervened about the fifth day it was usually of a low muttering type, though in several cases it was maniacal in character. Cases developing late delirium usually terminated fatally.

(3.) Pain: There was not much pain complained of except when a definite pleurisy occurred.

(4.) Epistaxis: Epistaxis, often of a marked degree, occurred frequently during the first week of the epidemic in about 25 per cent. of all cases.

(5.) Herpes of the lips was not unfrequent, and a few cases of herpes of the ears, usually both ears, occurred.

(6.) Thrombosis: One case of femoral thrombosis occurred in a woman civilian in hospital.

(7.) Jaundice was an uncommon complication. There were not more than 6 cases in the whole epidemic.

(8.) Vomiting was persistent and excessive in some cases, and was met with in some instances from the onset.

(9.) Meteorism occurred but rarely—about 6 cases in the terminal stage of illness, of which 4 died.

(10.) Diarrhoea: Although met with in a few cases diarrhoea was not a very prominent symptom.

(11.) Albuminuria was present in a few cases during the height of the fever, but cleared up and had no special significance, being merely a febrile albuminuria.

(12.) Hæmaturia with albuminuria: One case only noted, which recovered. There was a history of old kidney injury in this case.

(13.) Retention of urine was not uncommon, but yielded to ordinary treatment, being of a temporary character.

(14.) Acute suppression of urine: Only 1 case occurred, which terminated fatally.

(15.) Tongue and fauces: Extreme dryness of these parts, accompanied by more or less hoarseness, was common. In 1 case a patient developed acute laryngitis, which persisted for three weeks.

(16.) Pleurisy: A few cases with a limited effusion were noted. Small patches of dry pleurisy were fairly frequent.

(17.) Empyema: Only 1 case was observed. This was complicated by severe meteorism, and terminated fatally of pneumonic involvement of the other lung some weeks after operation.

(18.) Photophobia was not uncommon, although it was very marked in three cases.

(19.) Apoplexy: Two cases died suddenly in an apoplectic condition during the course of the epidemic.

(20.) Cerebro-spinal fever developed in 5 cases during the convalescent period, and all terminated fatally.

(21.) General distress: There was not the general distress present in most of the cases that one would expect in severe illness; even with marked cyanosis dyspnoea was not always pronounced.

Appended are some illustrative cases.

Treatment.—Treatment was conducted on general principles; no special drug was found to act as a specific. Medical Officers agreed as to the value of alcohol in treatment of serious cases.

Illustrative Cases.

Case 5.—P. A., age 34; service, five months: Admitted to hospital 17th September, 1918, complaining of headache and general malaise; no other symptoms. Complete recovery and discharge in a few days.