

On the 19th, 4 days after the onset of the convulsions temperature and pulse began to rise and rough, later blowing, breathing and moist sounds were heard over the chest.

On the 22nd the temperature rose to 107, and death ensued. After the temperature reached 104 there were no further convulsions. The important features of the autopsy, which was performed by Dr. Gillies, were the presence of typhoid ulcers in various stages of healing, and bilateral broncho-pneumonia, the evident cause of death.

The other organs showed cloudy swelling and the heart was somewhat enlarged, some atheroma of the aorta existed and the kidneys showed a moderate grade of interstitial nephritis. The brain showed on both sides a depression over the lower part of the ascending frontal region.

To summarize:—

Case No. 1 presented hæmoglobinuria with jaundice, both indicating blood destruction; as well as marked parenchymatous change in all the organs, especially in the kidneys, culminating in an uræmic attack. The dyspnoea amounting to air hunger in this case was an interesting feature, and may be explained by the loss of the oxygen carrying power of the red corpuscles.

As to the frequency of hæmoglobinuria in typhoid, Osler in 1500 cases saw it once. One other case we have found reported by Musser and Kelly in 1901. Otherwise the great majority of writers are silent upon the subject.

Whether in this case it was due to the typhoid bacillus alone, in absence of a blood culture we are not prepared to say, but the case lately reported by Dr. Blackader of *b. coli* septicæmia with hæmoglobinæmia, might suggest that there was a mixed infection.

Case II with a general hæmorrhagic tendency shown by widespread purpuric eruption and bleeding from nose, mouth, stomach, kidneys, and bowels is more directly referable to a secondary infection and this is the history of the majority of cases of hæmorrhagic typhoid.

As to the time of onset of the hæmorrhagic manifestations, in most of the cases this has occurred after the second week, although rarely it is hæmorrhagic from the outset.

Gerente in a Paris thesis of 1883, reports 64 cases of erysipelas in 3910 cases of typhoid and states that it usually occurs after the 21st day.

The points of interest in the third case are, first the onset of convulsions in typhoid which in the Johns Hopkins' statistics occurred 8 times in 1500 cases; secondly, the absence of convulsions during the height of the fever and their reappearance as fever came down. This feature