

he found a diplococcus which, so far as the evidence went, appeared to be the specific exciting agent of the disease. Death in this form is distinctly less inevitable than in the tubercular form, and Still thinks that it is probable that some of the cases of supposed recovery from tubercular meningitis were due to this affection. When recovery occurs, however, it is by no means always complete; frequently a condition of hydrocephalus supervenes; or, with the development of the child, some mental defect makes its appearance.

Epidemic cerebro-spinal meningitis must now be regarded as quite distinct from the preceding affections. It is only recently, owing to the investigations carried on in the pathological laboratory of Harvard Medical College during the epidemic of 1896 and 1897, that we have recognised this affection as a definite disease due to a specific organism first described by Weichselbaum, the *diplococcus intracellularis*. Cases of meningitis in which this micro-organism is found present a more or less characteristic clinical picture: the distinguishing symptoms are the sudden onset, the severe occipital headache, the painful stiffness and sensitiveness of the muscles, chiefly of those at the nape of the neck and along the spine; at the same time, temperature and pulse are variable and irregular, and run no uniform course; exacerbations and recurrences of fever are common, cutaneous rashes of various kinds may make their appearance: the urine may contain albumen, and, occasionally, sugar. Although the mortality is high, nevertheless a certain percentage of the more protracted cases recover. In such cases wasting is extreme, and convalescence is always slow. Very few escape without some permanent injury. Councilman calls attention to the tendency of the disease to produce permanent impairment of the mind. In distinguishing between these various forms of meningitis, Osler quotes Leichtenstern, as stating that in meningitis accompanying pneumonia, contraction of the muscles of the neck is often absent, delirium and coma is almost invariably present, and a fatal ending rapidly supervenes. In epidemic cerebro-spinal meningitis on the contrary, contraction of the muscles of the neck is invariably present, and even although delirium may occasionally supervene, long intervals of lucidity occur; occasionally the sensorium may be clear throughout the entire course of the disease. According to Councilman the chief diagnostic symptom between pneumococcus meningitis and the epidemic form is the absence or slight development in the former of symptoms pointing to an extensive infection of the meninges of the cord, and of the roots of the spinal and cranial nerves. In all these forms of meningitis the most reliable means of diagnosis is lumbar puncture. In a paper read before the American Pediatric Society, Wentworth emphasised the following facts:—Normal cerebro-spinal fluid contains neither