

observation holds true only so far as French writers are concerned. They found that the increase occurred in the great majority of cases, that it was generally, though by no means always, parallel in extent to the degree of lymphocytosis, and that it bore no definite relation to the stage of the disease. Their conclusions were within a year decisively confirmed by Coriat, Donath, Marchand, Nissl, Schoenborn, Siemerling, Skoczynski and others, and at the present time observation of the proteid present is, of course, a routine step in the examination of the cerebro-spinal fluid. The value of the sign is enhanced by the facts that on the one hand, as Kutner and Liebscher pointed out, the lymphocytosis due to metasyphilis is more constantly accompanied by an increase in the proteid content that is the lymphocytosis due to tertiary them had attributed any diagnostic significance to the syphilis of the nervous system, so that we have here a differential point of considerable value between the two conditions, and on the other hand, as shewn especially by Zilinakis, an increase in proteid may occur in cases of general paralysis at a time when no lymphocytosis is present and may thus supply an important clue to the diagnosis. Rénon and Tixier have similarly reported cases of meningitis in which there was present an increase in proteid but not in the cell count.

The amount of proteid present in normal cerebro-spinal fluid is but small. It is given as 0.25 grammes per litre by Gumprecht, as 0.2-0.5 by Quincke, as 0.2-1.0 by Siemerling, as 0.5 by Léri, and as 0.5-1. by Riecken. Some of these figures are based on the examination of the fluid in abnormal conditions, such as of hydrocephalus, spina bifida, etc., and it is doubtful if the amount ever exceeds half a gramme per litre in absolutely normal fluid. In general paralysis the average amount per litre is given as one gramme by Marie and Viollet, 0.9 by Nawratzki, 1.1 by Marchand, 1.6-2.5 by Cimbal, 0.75-3.5 by Schaefer, and 1-3 by Zilinakis. Nissl, without giving absolute figures, finds similar amounts, and Decoubaix says the amount varies up to 2-4 grammes. We