

*The Cerebro-spinal Fluid in Schizophrenia* [*El líquido céfallo-raquídeo en la esquizofrenia*]. (*Arch. de Neurobiol.*, vol. xiii, p. 743, 1933.) Arias, B. R., Irazoqui, E., and Catasús, J. M.

In their examinations of the cerebro-spinal fluids of schizophrenics, the authors found that 75% showed abnormalities, which were small, but sufficient for diagnostic purposes. The alteration usually consists of a slight albuminosis, without lymphocytosis and rarely with globulinosis, which is reflected in the behaviour of the colloidal reactions. Pathological fluids are found much more frequently in old than in recent cases of schizophrenia, and somewhat more often in the simple and hebephrenic than in the paranoid forms.

M. HAMBLIN SMITH.

*Determination of Chlorine, Calcium, Potassium and Sodium in Small Quantities of Cerebro-spinal Fluid.* (*Med. Doswiadoczalna i Spoleczna*, vol. xviii, pp. 80-90, 1934.) Juev, J.

Determination of chlorine in 0.5 or 1 c.c. of cerebro-spinal fluid by the methods of Van Slyke and Mohr are in agreement if the albumen present does not exceed 0.25% ; potassium, when determined by Kramer and Tisdall's method, calcium, when determined by the method of Kramer and Tisdall or by the method of Woard, and sodium, when determined by that of Kramer, Gittleman and Rourke, gave accurate results. The following amounts were found in the spinal fluid of normal rabbits: Chlorine (calculated as sodium chloride) 774, calcium 5.8, potassium 13 and sodium 343 mgrm.%. The importance of control tests is stressed.

C. T. I. (Chem. Abstr.).

*Lactic Acid in the Cerebro-spinal Fluid in Meningitis.* (*Arch. Kinderheilk.*, vol. ci, pp. 108-117, 1934.) Geldrich, J.

The lactic acid concentrations in blood and spinal fluid were determined by the Embden titrimetric method (method described). In meningitis the spinal fluid lactic acid increased as the sugar decreased, and terminally often reached a concentration much higher than that in the blood, which usually remained constant throughout.

E. M. HUMPHREYS (Chem. Abstr.).

*Chlorides in the Cerebro-spinal Fluid during Nervous Diseases.* (*J. Biol. Méd. Exptl.* [U.S.S.R.], vol. xiv, p. 64, 1930.) Stefer, D. G.

The chloride contents of the blood and cerebro-spinal fluid were determined in 174 patients. A decrease in the chloride content of the spinal fluid was accompanied by pathological processes in the meninges, the greatest decrease occurring during bacterial meningitis (especially tubercular). During acute meningitis a decrease in the chloride content of the fluid below .67 must be considered a grave symptom. In syphilitic diseases of the central nervous system the decrease in the chloride content of the spinal fluid was parallel to the degree of infection of the meninges. The decrease was due to the adsorption of the chlorides by the albumens, which penetrated into the cerebro-spinal fluid when the hemato-encephalic barrier was disturbed. The return of the chloride content to the normal progressed parallel with the decrease in the albumen reaction.

G. G. (Chem. Abstr.).

*The Amylolytic Value of the Cerebro-spinal Fluid and the Blood in Non-syphilitic Psychoses* [*Ricerche sul valore amilolitico del liquor e del sangue in psicosi non luetiche*]. (*Riv. di Freniat.*, vol. lviii, p. 287, June, 1934.) Imber, I.

The writer studied, by means of the Wohlgenuth method, the amylase content of the spinal fluid and blood-serum of 13 schizophrenics, 8 post-encephalitics, 10 cases of mania, 5 melancholics, 10 epileptics and 8 mental defectives. In no case was a reading of 1.3 diastatic units at once or 2 units at the end of one hour exceeded. The lowest values down to complete absence of amylase were found in epileptics, some mental defectives, and in the hebephreno-catatonic group of the

schizophrenics. The values of the serum varied between 20–40 diastatic units and showed no variation with the nature of the psychosis.

G. W. T. H. FLEMING.

*The Presence of Amylase in the Blood and in the Cerebro-spinal Fluid in Neuro-syphilis* [Sulla presenza dell'amilasi nel sangue e nel liquor nella neurosifilide]. (*Riv. di Neur.*, vol. vii, p. 53, Feb., 1934.) Disana, G.

The author examined the blood and spinal fluids of 62 cases of neuro-syphilis. He did not confirm the results of Kafka and Hayashi, who found an increase in the amylase in general paralytics, the latter writer particularly in remissions. On the other hand he did not obtain the completely negative results recorded by Marchionini and Othenstein. In cured cases of neuro-syphilis the author found negative results in only one-third of the cases.

The amylolytic value of the serum was increased above normal in all his cases. No constant relationship between the amylolytic values of the spinal fluid and the blood was ascertained.

G. W. T. H. FLEMING.

*Spirochætes in the Spinal Fluid in General Paralysis after Artificially Produced Meningeal Reactions* [Le spirochæte nel liquor dei paralitici progressivi in seguito a reazioni meningeæ acute artificialmente provocate]. (*Riv. di Neur.*, vol. vii, p. 65, Feb., 1934.) Vizioli, F.

The author found that after aseptic meningitis produced by doubly distilled water, there was an increase in the number of cases in which spirochætes could be found in the cerebro-spinal fluid from 4% to 12.5%, showing their passage from the parenchyma of the brain into the spinal fluid.

G. W. T. H. FLEMING.

*Oxidase-reducase in the Cerebro-spinal Fluid in Some Forms of Mental Disease, and the Possibility of its Investigation by the Potassium Permanganate Reaction of Benedek and Thurzo* [Sulla ossido-riducasi nel liquido cefalo-rachidiano in alcune forme di malattie mentali e sulla possibilità di poterla esplorare con la reazione al permanganato di potassio (reazione di Benedek e Thurzo)]. (*Riv. di Pat. Nerv. e Ment.*, vol. xliii, p. 476, Jan.-Feb., 1934.) de Marco, A.

The reaction of Benedek and Thurzo consists in adding to .25 c.c. cerebro-spinal fluid in a sterile and dry test-tube, 1 c.c. of 1% oxalic acid and one drop of 1% potassium permanganate. The mixture, using distilled water instead of spinal fluid, is rose-violet in colour; the colour changes to yellow-rose, to yellow, and then to a pale yellow. The control takes 30 minutes for this change to be completed; with normal spinal fluid the time taken is 14 minutes, and with pathological fluids round 8 minutes. The greater the amount of albumen present in the fluid, the more rapid and intense the changes.

The author found that in schizophrenia, epileptic psychoses, alcoholic conditions, syphilitic conditions, circular psychoses, confusional psychoses and generally in all conditions where the amount of albumen is very minute the reaction was negative. The reaction was pronounced in cerebral syphilis, meningitis, cerebral tumours, spinal cord tumours, general paralysis and in any other conditions where the fluid albumen is much increased.

G. W. T. H. FLEMING.

*Phagocytic Behaviour of Interstitial Cells of Brain Parenchyma of Adult Rabbit towards Colloidal Solutions and Bacteria.* (*Arch. of Path.*, vol. xviii, p. 50, July, 1934.) Lebowich, R. J.

The author found that coloured colloidal particles, blood-pigments and bacteria were stored by transitional microglia cells, but not by normal resting and dividing microglia cells. No phagocytosed dye particles, etc., were observed in silver-reduced neuroglia and oligodendroglia cells. There is a distinct relationship between the phagocytic capacity of the microglia cells and their maturity. The