Diabetes Insipidus (*Il diabete insipido*). (*Riv. di Neur., vol. ix, p.* 263, *Aug.*, 1936.) *Salmon, A.*

The author discusses the three fundamental factors in the ætiology of the disease :

(1) The polyuric centre in the diencephalon.

(2) The pituitary factor in the posterior lobe. He refers to the frequency of polyuria in acromegaly, the adiposogenital dystrophy, etc.

(3) The suprarenal factor, influencing the saline content of the urine, the arterial tension and other functions. H. W. EDDISON.

Magnesium Salts in Treatment [*Sali di magnesio in terapia psichiartica*]. (*Rass. di Studi Psichiat., vol. xxv, p.* 788, *Sept.–Oct.*, 1936.) *Mossa, G.*

Magnesium sulphate in doses of 10 c.c. of a 10% or 15% solution is injected intravenously. It is said to be particularly useful in the excitement of manic-depressive cases and epileptics. Anæsthesia for pain and temperature, muscular relaxation and abolition of superficial reflexes are transient results of the injections. The systolic blood-pressure falls slightly, especially in cases with hypertension, but the diastolic pressure is hardly affected. These signs disappear in about an hour, but the patient remains calm and quiet, though fully conscious all the time until normal sleep follows. No ill-effect has been noted.

H. W. EDDISON.

The Orthophosphoric Acid Reaction in the Cerebro-spinal Fluid [*La reazione all' acido ortofosforico sul liquido encefalo-rachidiano*]. (*Rass. di Studi Psichiat., vol. xxv, p.* 714, *Sept.–Oct.*, 1936.) *Galli, G. M.*

The reaction in the cerebro-spinal fluid is found to be positive in 90% of syphilitic cases, but it is by no means specific. It may be positive in disseminated sclerosis, meningitis, peripheral neuritis and other conditions.

The material investigated consisted of 206 fluids from various neurological and psychiatric cases. H. W. EDDISON.

The Connective Tissue Reaction in Multiple and Diffuse Sclerosis. (*Arch. of Path., vol. xxiii, p.* 338, *Mar.*, 1937.) *King, L. S.*

The writer found in every one of 13 cases of multiple sclerosis networks of argyrophil connective-tissue fibres growing diffusely into the parenchyma. The extent of this growth varied from case to case and even from plaque to plaque. In part the reticulin nets grew from blood-vessels of small calibre, predominantly capillaries and precapillaries, in part they appeared to grow independently of pre-existing reticulin. Diffuse reticulin invasion may be one of the early pathological reactions in multiple sclerosis, and is found not only in the white matter but in the cerebral cortex and other grey masses. The growths are related to the disintegration of myelin, with the intensity of the process playing some role. Such reticulin nets bear no correlation with the degree of gliosis, of axis-cylinder destruction or of perivascular infiltration.

Eleven cases of diffuse sclerosis were divided into three groups, of which the first showed no reticulin nets, the second a slight or moderate growth similar to that in multiple sclerosis, and the third a profound growth, showing qualitative as well as quantitative differences from that in multiple sclerosis.

G. W. T. H. FLEMING.

Lesions of the Nervous System of the Rat in Vitamin B Deficiency. (*Arch. of Path., vol. xxiii, p.* 207, *Feb.*, 1937.) *Davison, C., and Stone, L.*

Diets deficient in vitamin B_1 or in vitamins B_1 and B_2 (totally and subtotally deficient) result in the rat in neurological signs, such as dragging and paralysis of the extremities, equilibratory disturbances, priapism, convulsions and tonic retractions of the head. Pathologically the outstanding picture is that of disintegration of

the myelin sheaths of the peripheral nerves, and vacuolation and liquefaction necrosis of the ganglion cells of the mesencephalon, metencephalon and anterior horns of the spinal cord. Hæmorrhages with changes in the ganglion and glia-cells of the mesencephalon are also met with in the animals with convulsions.

The pathological changes in the nervous system in animals suffering from inanition are essentially the same as those in animals deprived of vitamin B_1 or of both vitamins B_1 and B_2. If anything, the changes in the peripheral nerves in animals subjected to inanition are more marked. In such animals the pathological changes are essentially the same whether the animals are totally starved or are given abundant vitamin while starving. The clinical manifestations in animals subjected to inanition, however, are not identical with those in animals suffering from vitamin B deficiency, possibly because of the rapid death of the starved animals. G. W. T. H. FLEMING.

Blood Cholesterol and the Manic-Depressive Psychosis. (*Journ. Lab. and Clin. Med., vol. xxii, p.* 240, *Dec.*, 1936.) *Schube, P. G.*

The author investigated 71 cases of manic-depressive psychosis and 53 normals. He took the normal range to be between 110–195 mgrm., with a mean value of 148–1·7 and a median value of 150 mgrm. The range among the manic-depressives was from 50–428 mgrm. with a median value of 104·6. Only 23·8% had a blood-cholesterol value between normal levels.

In the separate groups, 84·8% of the 33 manic cases showed a cholesterol value below normal limits; the remaining 15·2% were within normal limits. In the depressive group; practically one-third were below normal, one-third normal and one-third above normal. The author thinks it is possible that some disturbance of the balance between the endocrine glands, the autonomic nervous system and the emotions is the factor at work. G. W. T. H. FLEMING.

Cerebral Lesions in Hypoglycæmia. (*Arch. of Path., vol. xxiii, p.* 190, *Feb.*, 1937.) *Baker, A. B., and Lufkin, N. H.*

The writers studied the brains of three patients who died in a hypoglycæmic state. They found numerous new and old hæmorrhages scattered irregularly, which were most numerous in the patients who had had the most severe convulsions. The ganglion cell changes found were due entirely to post-mortem changes. They carried out experiments on six rabbits, but could find no evidence of cell alterations of pathological significance. G. W. T. H. FLEMING.

Evidence of Selection in the Building up of Brain Lecithins and Cephalins. (*Journ. Biol. Chem., vol. cxviii, p.* 131, *Mar.*, 1937.) *McConnell, K. P., and Sinclair, R. G.*

By feeding young rats with elaidic acid both before and after birth, the elaidic acid content of the fatty acids in the lecithins and cephalins of the brain was found to be only about one-fourth of that of the liver and muscles. Thus there would appear to be a greater degree of selection in the building up of brain phospho-lipids than those of liver and muscle. G. W. T. H. FLEMING.

The Carbohydrate Metabolism of Brain. I: The Determination of Glycogen in Nerve Tissue. (*Journ. Biol. Chem., vol. cxvi, p.* 1, *Nov.*, 1936.) *Kerr, S. E.*

The writer describes his modification of the Pflüger procedure for the estimation of glycogen. The method depends on (*a*) avoidance of post-mortem change during preparation, (*b*) rapid solution of the tissue by digestion with hot alcoholic potassium hydroxide, (*c*) separation of cerebrosides by means of hot methyl alcohol—chloroform mixture, and (*d*) correction for non-fermentable reducing substances liberated during acid hydrolysis. By this method the recovery of glycogen added to brain averaged 95·6%. Values of from 70–130 mgrm. per 100 grm. were found in mammalian brains frozen in situ with liquid air.