

Part III.—Epitome of Current Literature.

I. Neurology.

The Influence of Efferent Cerebral Pathways upon the Sympathetic Nervous System. (*Brain*, July, 1930.) Langworthy, O. R., and Richter, C. P.

Using the galvanic skin response as a measure of sweat-gland activity, the controlling influences from the cortex, brain-stem and spinal cord have been investigated by the authors. Definite galvanic skin responses were obtained by faradic stimulation of two areas adjacent to the motor cortex, of the floor of the third ventricle, the cortico-spinal and rubro-spinal tracts, the vestibular nuclei, the posterior column nuclei and the posterior columns of the cervical cord.

They conclude that the same cerebro-efferent pathways which influence somatic motor cells also control preganglionic sympathetic cells, and that this cerebral control is predominantly an inhibitory one. In general, cerebral centres seem to exert final control upon lower centres through well-known cerebro-efferent pathways.

WM. McWILLIAM.

Experimental Lesions in the Tuber Cinereum of the Dog followed by Epileptiform Convulsions and Changes in Blood Chemistry. (*Arch. of Neur. and Psychiat.*, October, 1930.) Morgan, L. O., and Johnson, C. A.

The authors operated on 16 dogs, and produced lesions in the tuber cinereum by injecting .1 c.c. of a weak solution of mercuric chloride. The animals, who remained otherwise normal in appearance, developed periodic convulsions. The first convulsion began from 2 to 6 hours after the operation, was usually mild, and was accompanied by various symptoms of vasomotor and sympathetic upset. The convulsions gradually become more frequent and more severe. After the convulsion the dogs remained unconscious for several minutes, following which they were confused and disoriented. The convulsions lasted from 1.5 to 3 minutes. The constant phenomena were clonic and tonic spasms, dilatation of the pupils, salivation, marked increase in the rate of the heart-beat, a rise of 1° F. or more in body temperature, unconsciousness, frequent urination and occasional defæcation. Finally the animal passed into status, which lasted for two hours or more and ended in death. There was a continuous state of coma, greatly increased rate of heart-beat, dilatation of the pupils, salivation, an inactive state of the

stomach and intestines, and a temperature of 108°–111° F. A few dogs had periodic convulsions over a period of two or three days and made a complete recovery.

The blood chemistry showed no appreciable alteration in the calcium or potassium contents of the serum, or in the K : Ca ratio. Non-protein nitrogen appeared to increase with the increase in frequency and severity of the convulsions. Urea nitrogen followed the trend of the non-protein nitrogen. CO₂-combining power of the plasma decreased as the frequency and severity of the spasms increased; the blood-sugar decreased until the animal died. Examination of the liver in three cases showed a total absence of glycogen. The authors consider that the lesion produced in the tuber is irritative, and causes a discharge of impulses from the nuclei in this region.

G. W. T. H. FLEMING.

Influence of Intercurrent Febrile Disorders on Pre-existing Epilepsy.
(*Arch. of Neur. and Psychiat.*, October, 1930.) Guthrie, R. H.

The author reviewed 200 cases of epilepsy afflicted with febrile disorders. In the group with non-respiratory disease there was a decrease during the month of illness of 33.3% in the number of seizures. In those with respiratory disease there was no change.

G. W. T. H. FLEMING.

Lesions of the Frontal Lobe. (*Arch. of Neur. and Psychiat.*, October, 1930.) Sachs, E.

The author, from a study of his series of 45 cases with lesions of the frontal lobe, concludes that the most dependable signs are :

1. The mental change, which is characterized by a loss of memory for recent events and indifference to the illness and the surroundings. At times there is a euphoric state, at other times there may be marked depression.
2. A facial weakness on the side opposite the lesion, sometimes associated with involvement of the pyramidal tract of the opposite side.

In addition there may be disturbances of speech, and occasional defects in the visual field when the temporal lobe has been encroached on.

G. W. T. H. FLEMING.

A Post-Encephalitic Syndrome—Torsion Spasm of the Foot. (*Rivista di Neurologia*, February, 1930.) Vercelli, G.

The author describes a post-encephalitic syndrome in which there is a torsion spasm of the foot and lower leg when the patient walks. In the dorsal decubitus the spasm vanishes and all voluntary movements of the affected limb are possible. When the limb is put into the vertical position, however, the maintenance of equilibrium provokes a hypertonic spasm of the muscles, with contraction of the flexors and adductors on walking. The condition might be described as a " *pied de charleston*."

J. R. BEITH ROBB.