partial oedema of the grey cortex on the basis of a severe ischaemia of the areas involved. By imbibition of fluid into the tissue, the ischaemia had led to a severe damage of the ectodermal elements, but with a slight proliferative reaction. A comparison of these two cases shows how distinct areas of gray cortex can be destroyed by both organic and functional disturbances of the blood-vessels. In the one a demonstrable organic ischaemia of a large pial vessel took place, with rapid and severe necrosis of the supplied tissue. In the other case, a more gradual and less complete disturbance of the nutrition due to stasis resulted.

The authors conclude with the suggestion that the etiology of many obscure transient nervous syndromes and of severe anatomical lesions of the brain without apparent organic cause may be solved by further study of the possibility of functional circulatory disturbances.

R. M. S.


Of 23 cases which were Boltz-positive, all were cases of general paralysis and all showed other syphilitic reactions. Of 25 cases which were Boltz-negative, 11 showed positive syphilitic reactions and 14 were completely negative in that respect. Taking the cases of general paralysis for which the Boltz test is supposedly specific, we find that in 34 cases 23 were positive and 11 negative. One is therefore forced to the conclusion that whereas a positive result is an additional confirmation of neurosyphilitic disease, a negative result has no particular significance. Apart from the clinical study of a case with, say, indefinite protein reactions, weak Wassermann or only slightly raised cell-count, the author would be more influenced by the result of the gold-sol test than by either a positive or negative Boltz reaction.

C. S. R.

SENSORIMOTOR NEUROLOGY.


A man of 34 fell ill with a meningitis of uncertain nature. The lumbar puncture fluid was characterized by a marked pleocytosis, in which there was at first a polymorphonuclear predominance, but later a lymphocytosis. The patient’s temperature fell at the end of a week and the symptoms abated. Weakness of the arms and legs gradually developed, however, about a week later. The tendon jerks became sluggish and the plantar responses were extensor in type. There was retention of urine. Lipiodol was held up between the bodies of the fifth and sixth cervical vertebrae. The cerebrospinal fluid, withdrawn by the
lumbar route, showed a marked increase in protein and a moderate degree of lymphocytosis. Death occurred a few hours after the lipiodol injection, and five weeks after the commencement of the original illness. Autopsy revealed inflammatory changes in the meninges covering the brain, medulla, and upper cervical cord. The dura was adherent to the cord at the site of the hold-up of lipiodol. There was a perivascular type of cerebrospinal meningitis, with a predominantly lymphocytic type of reaction. The white matter of the cord was disintegrated, especially in the region of the posterior columns, where there was a loss of myelin and changes in the axis-cylinders, giving rise to a lacunar appearance.

M. C.


An unusual case of meningococcus 'giant cocci' meningitis is presented from both the clinical and the bacteriological standpoint. Only the finding after a long search of a rare organism and the rapid recovery following serum administration by cistern puncture finally settled the diagnosis. It is desirable to be on the look-out for unusual types of organism in this condition and repeated examinations are indicated. The point of view is stressed that large quantities of serum are not necessary and that successful treatment depends more on ready accessibility of the serum to the disease focus. R. G. G.


A discussion of convulsive attacks both cortical and infracortical occurring in epidemic encephalitis. Such attacks are decidedly rare; many of the cases described in the literature either seem to be chance combinations of essential epilepsy and encephalitis or do not belong strictly to the epidemic group.

The occurrence of fits depends more on the extent than on the localization of the encephalitic process. In the infracortical cases the manifestations were very diverse, some being motor, others vegetative, and still others sensori-affective. The various types of these are discussed and illustrated with their bearing on the whole problem of the pathology of epilepsy. R. G. G.

[58] Epileptiform convulsions.—H. L. Parker. Arch. of Neurol. and Psychiat., 1930, xxiii, 1032.

In 313 cases of intracranial tumour collected from the Mayo Clinic 67 (21.6 per cent.) were found in which major epileptic seizures had occurred. All of the intracranial tumours associated with convulsions were situated above the
tentorium. In most of the cases (56) in which convulsions occurred, the tumour was situated in the frontal, parietal or temporal lobes of the brain, in descending order of frequency, or in various combinations of these areas. Convulsions occurred as an initial symptom of the disease in 38 cases. In 13 cases no other complaint had been present for one or more years preceding the development of other signs and symptoms.

In only 29 of the 67 cases did an aura occur as a prodrome to the attack. As might be expected, when present it was either motor or sensory, or both. From the standpoint of diagnosis, the convulsions at some period of the disease differed not at all from those seen in epilepsy, but the tendency toward a change in type is suggestive. A patient may start out with Jacksonian convulsions, and later general attacks may develop, or vice versa. As a factor in the production of convulsions increase in intracranial pressure is fairly well excluded, for infratentorial tumours are more commonly associated with increased intracranial pressure than are supratentorial tumours. The converse also holds, for in the 67 cases in which convulsions occurred, 33 did not disclose ophthalmoscopic evidence of increased intracranial pressure.

R. M. S.


From the clinical standpoint, the common feature in a selected group of six cases was the extreme difficulty in reaching any accurate conclusions as to what pathological processes were responsible for the patients' symptoms. It was clearly manifest in all of them that there was an increase in intracranial pressure and probably hydrocephalic distension of the ventricles of the brain. The ages of the patients removed them from the category of patients with congenital hydrocephalus. Most of them had lived apparently normal lives until the first symptoms appeared and definitely suggested a disease acquired after birth. The course was relatively acute in one case, symptoms having been present only nine days before death, but the patients in the other cases had been ill for periods varying from seventeen months to five years. In one case a mistaken diagnosis of suprasellar tumour was made, an error not infrequently due to the symptoms caused by compression of the sella and optic chiasma by the bulging floor of the third ventricle.

In five cases there was a suggestion of hypopituitarism, due, no doubt, to the same mechanical factor. Ataxia was present in three cases; these patients were children aged between 8 and 11 years.

Altogether there was nothing outstanding in the clinical characteristics of the whole group, nor was there anything that would give a reasonable assurance as to the identity of the underlying morbid processes.
From the pathological standpoint, the six cases fall into three groups of two each. In the first group the condition was confined to the region of the aqueduct, was proliferative and resembled in its general characteristics similar changes that have been found going on round the central canal of the spinal cord.

The second group consisted of minute, rapidly growing tumours in a very early stage of formation. They were so situated that before they had reached any appreciable size the aqueduct became inevitably compressed and ultimately occluded. In this group, also, the changes were confined to the region of the aqueduct.

The third group represented a diffuse inflammatory process involving the ependyma of almost the whole ventricular system, with the subependymal tissue. In these two cases it was not definitely ascertained how the infection was acquired, nor was it clear by what pathways such an infection entered the ventricular system.

The authors' cases are interesting, not only for their intrinsic character, but because of the contrast between the almost microscopic size of the lesions and the severe clinical symptoms that finally led to a fatal outcome.

R. M. S.


The case reported is that of a boy of 15, the subject of cutaneous and subcutaneous neurofibromatosis including a large subcutaneous tumour of the right foot which had been present almost since birth. At the age of 15 symptoms of paraplegia appeared and he was completely paraplegic 'in flexion' at the time of his admission to hospital. The diagnosis of spinal compression probably by a meningeal neurofibroma appeared to be confirmed by a lumbar injection of lipiodol which was held up at the level of the tenth thoracic vertebra. Following on this injection power and sensation gradually returned to the legs, until he was able to walk for two or three kilometres. Thereafter some increase of stiffness set in, but he remained able to walk. In view of this improvement the diagnosis of spinal tumour seemed less certain, and the authors considered the possibility that the paraplegia might have been due to bony deformity in the spine, but found no evidence of this. Shrinkage of a spinal neurofibroma under the prolonged action of lipiodol appeared to them a possibility in view of the oedematous nature of many of these tumours. The later progression of symptoms certainly seems to be in favour of this hypothesis.

J. G. G.
The incidence of fever and leucocytosis in multiple sclerosis.—J. B. McKENNA. Arch. of Neurol. and Psychiat., 1930, xxiv, 542.

The author investigated the occurrence and incidence of abnormalities of body temperature and of leucocyte count in 109 cases of disseminated sclerosis. In 40.4 per cent. there was neither fever nor leucocytosis, but three showed increased cell counts in the cerebrospinal fluid; 55.9 per cent. showed elevations in temperature, 44.9 per cent. between 99° and 99.5° F. and 11 per cent. between 99.6° and 100° F.; 22.9 per cent. showed definite leucocytosis, 3.6 per cent. occurring without elevation in temperature and 19.3 per cent. accompanying febrile reactions. Pleocytosis of the cerebrospinal fluid occurred in nineteen cases, or 17.4 per cent.; three of these cases showed normal temperatures and leucocyte counts; seven were accompanied by fever alone; two by leucocytosis alone, and seven by both fever and leucocytosis.

R. M. S.

Myatonia congenita—E. S. GURDJIAN. Arch. of Neurol. and Psychiat., 1930, xxiv, 52.

Several cases of myatonia congenita are reported. In one case in which an autopsy was performed microscopic examination of the nervous system and striated muscle indicated involvement of both. There was marked change in the anterior horns and abnormalities in the muscles which could hardly be merely the reaction to pathological changes in the anterior horns. The author suggests that a common factor, and probably a toxic one, involving the neuromuscular system may be responsible. In favour of this assumption are the postnatal cases of this disease with an onset usually after an acute infection.

R. M. S.

PROGNOSIS AND TREATMENT.


A very long article reviewing recent work on epilepsy and advancing the theory that fluid control and water balance play a large part in the cycle of convulsive attacks and that the major forms of the seizures can be modified or controlled with proper regulation of these factors. The author thinks that epilepsy (as well as other mental deficiencies) has an understandable hydraulic pathology and that certain structural traumatic and inflammatory considerations are present in the majority of these conditions. Full consideration must be given to the physiological and vasomotor factors which complicate the problem, and an exact means of study by encephalography and all other methods at our