NEUROLOGY


Among 80 patients with neuropsychiatric disorders in 18 different diagnostic groups there were no significant abnormal findings in regard to the calcium of the cerebrospinal fluid, the blood serum or an ultrafiltrate of the serum or in regard to the ratios of these quantities to each other.

R. M. S.


An ether-alcohol reaction in the spinal fluid is described. The end-product of this reaction is a flocculent material possessing the properties of a proteose-like substance. This substance is present in all spinal fluids examined.

C. S. R.

SENSORIMOTOR NEUROLOGY


A survey of 86 cases reported in which trauma has preceded paralysis agitans. The author points out that since the syndrome is only a composite picture of symptoms due to involvement of the striato-pallidal system in addition to other regions of the brain, in the same manner as an aphasia or a hemianopsia may be the result of a tumour, a hemorrhage, or a trauma, so may the Parkinsonian syndrome be the result of infection or trauma. However, a history of trauma alone, even if it occurred prior to the onset of the disease, is not sufficient. First, the trauma must be of sufficient severity to produce definite damage to the brain; secondly, the trauma must be directly to the head or, if not to the head, of such a nature as indirectly to involve the brain; thirdly, there must be a clear and definite developmental connection between trauma and disease.

The conclusions drawn are that:

1. A great majority of the cases were diagnosed on assumption of a hypothetical neuritis ascendens, which has no existence in fact.
2. In a great number of cases, the history of trauma was not definite.
3. In many cases, the time relationship between trauma and onset of diseases was of such length as to preclude connection between them.
4. Many cases either were not paralysis agitans, or belonged to postencephalitic Parkinsonism.
5. Only in two cases was there an intimate relationship between trauma
and disease, and the clinical picture was one of a Parkinsonian syndrome due to an injury of the brain.

(6) Trauma therefore cannot cause paralysis agitans.

R. G. G.


Clinically, the organic sequelae of head injury should be differentiated from the terror and anxiety reactions following a threat to bodily integrity. The term 'traumatic neurosis' may be confined to the latter type of reaction. The subjective post-traumatic syndrome, characterized by headache, giddiness, inordinate fatigue on effort, intolerance to intoxicants and vasomotor instability, is organic and is dependent on a disturbance in intracranial equilibrium due directly to the blow on the head. It is suggested that the term 'post concussion syndrome' be used for this symptom-complex. 'Traumatic encephalopathy' may be used as a generic term if it is understood that it includes cases in which physiological disturbances of the cerebral mechanism are present although organic lesions are not demonstrable. Psychogenic factors always complicate the clinical picture if the socio-economic and other difficulties following the trauma last long enough. Negative results on neurological examination and a normal mental status are no final criterion of the presence, absence or degree of damage to the brain resulting from head trauma. No opinion should be formed in doubtful cases without a systematic clinical survey. It must be noted that failure to understand a clinical phenomenon is no proof of its psychogenicity and also that significant cranial injury can occur without loss of consciousness.

C. S. R.


Among various manifestations observed in lesions of the frontal lobe is one that has aroused controversy, viz. ataxia of cerebellar type.

Five cases are presented and the literature is reviewed. Evidence tends to prove that the frontal region of the cerebrum contains a centre for equilibrium and orientation and when the cellular elements of this centre are involved, even in a small degree, the fronto-ponto-cerebellar pathway originating therein is functionally disturbed and gives rise to ataxic manifestations simulating those of primary cerebellar disorders. From the standpoint of differential diagnosis, the multiple anatomoclinical and experimental cases cited above, as well as the five personal cases described here, indicate strongly that a bilateral irregular distribution of cerebellar phenomena (the dissoci-
tion phenomenon) may be of considerable assistance in localizing the original lesion in the frontal area of the brain. Strict unilaterality of morbid cerebellar manifestations is in favour of cerebellar lesions.

R. G. G.


The author examined five cases of tumour of the dorsal-pontine region. As regards diagnosis his conclusions are as follows: Difficulty in opening the mouth and dysarthria—speech being rather ‘through the teeth,’ with or without some contraction of the facial muscles—are usual. There may be no other sign of cerebral disturbance. Attempts at radical operation are useless in such cases. Right subtemporal decompression may be performed combined with drainage, a large opening being made in the anterior and inferior corner of the lateral ventricle in order to allow a free outflow of cerebrospinal fluid from the lateral and third ventricles.

M.


Emaciation is usually the result of organic disease, more especially of an endocrine organ (e.g. Grave’s, Addison’s and Simmond’s diseases). More rarely it depends upon an organic affection of the brain, e.g. encephalitis lethargica, chronic manganese poisoning or general paralysis. In the latter diseases damage to the vegetative centres in the floor of the midbrain is said to be the cause of the emaciation.

M.


Herpes zoster affecting the cranial nerves was observed in 20 cases. A single nerve was affected in 11 cases, and two or more cranial nerves in nine. It has been supposed that involvement of the ganglion or of the peripheral nerve in addition to a meningitis is the lesion in a herpes zoster. All these different structures may be implicated, but a meningitis is invariably combined either with involvement of the ganglion or of the peripheral nerve. Infection, intoxication and mechanical irritation are of equal importance. Histologically, the disease is a neuritis differing from other forms of neuritis only in the presence of cutaneous vesicles. Hyperalgesia of the skin appearing at the onset is of much value in the differential diagnosis.

M.

Some tendon and myotatic reflexes of the scapular region, heretofore unreported in the literature, are here presented.

These are different in reaction and innervation from the scapular reflex of Dejerine, since the cells governing them extend into the fourth and fifth cervical segments. The scapular tendon reflexes also differ from the scapular skin reflex of the literature. Hence, in speaking of scapular reflexes, one should always designate them as skin or tendon scapular reflexes. The motor cells concerned in the reflex arcs of the scapular reflexes are located in the fourth, fifth and sixth cervical segments, whereas those subserving almost all the tendon reflexes of the upper extremity are situated in the sixth, seventh and eighth cervical, and the first two thoracic segments. The scapular tendon reflexes do not seem to need reinforcement, since they are present in every normal individual. Deformities of the spinal column, tumours in the region of the scapula, and fractures of the bone may affect or interfere with the reactions of these tendon reflexes. Diseases of the brain, such as apoplexy and cerebrospinal syphilis, and diseases of the spinal cord, such as anterior poliomyelitis, multiple sclerosis, amyotrophic lateral sclerosis, etc., affect these tendon reflexes as they do the other tendon reflexes of the body. The reflexes are of particular value in differentiating cases of organic from hysterical hemiplegia or monoplegia, since the reactions are normal in the latter group.

In cases of postencephalitis and postencephalitic Parkinsonism the reflexes show marked differences in reaction. A case of dystonia musculorum deformans of five years' duration presented definitely unequal scapular reflex reactions. Some evidence has been shown of involvement of the levels through which the reflexes are mediated in the fourth, fifth and sixth cervical segments in the cord. Some cases of tabes dorsalis with definite absence of other tendon reflexes show present and active tendon and muscle reflexes in the scapular region. The reflexes are important in some cases where the diagnosis of syphilis of the central nervous system is uncertain. Instances of peripheral nerve trauma or infection in which the scapular tendon reflexes were affected are also presented.

R. G. G.


A man sustaining a dirty wound was given an injection of antitetanus serum. Eight days later pyrexia appeared which at first was thought to be due to
influenza. On the following day a typical serum rash appeared with swelling of many joints, especially the right shoulder. The pain decreased during the next two weeks, but a typical paralysis of the right brachialis plexus was noticed. This persisted for two years before recovering. Only a few similar cases have been recorded. The cause of such a paralysis following antitetanic serum injection is not definitely known. Previous serum injections had not been given to this man. It is supposed that such cases are the result of individual predisposition.

M.


A girl was vaccinated for the first time when she was nearly two years of age. As no result was apparent she was revaccinated 18 months later. Seven days following the vaccination she developed signs of encephalitis. Complete recovery took place after three and a half weeks. Eighteen months later the child died of an acute illness. On complete histological examination of the central nervous system only unimportant remains of the encephalitis were found.

M.

PROGNOSIS AND TREATMENT


Twelve cases of multiple sclerosis have been treated with intraspinal injections of lecithin in accordance with Minea's and Dragomir's method. Ten of these cases have been carefully studied before and after treatment. Nine of the ten showed greater or lesser improvement. Among these were several severe cases. The method is harmless, though rather severe on the patients in certain respects. In its entirety it consists of intraspinous lecithin injections, the administration of cod-liver oil over long periods of time, and also of quinine hydrochloride.

The theoretical grounds for the success of the treatment from the author's standpoint are that the lecithin neutralizes the lipolytic substance present in the spinal fluid.

The results are sufficiently good to justify further use of this method.

R. G. G.