produce swelling of the brain by increasing the state of hydration of the brain tissue (e.g. distilled water, alkali) increase the permeability, as shown by the decrease in polarizability. This is a reversible process, as indicated by the effect of some acids and of hypertonic salt solutions after previous swelling of the brain. These experiments support the view that pathological processes which call forth swelling of the brain produce an impairment of the cell-surfaces in that their density is lowered. The transitory increase in permeability of the cell-surfaces, which is, according to modern theories of excitation, an essential part of the excitation process, is thus facilitated, and the threshold of the cells for metabolic or other stimuli is lowered. This explains the mechanism by which swelling of the brain increases convulsive reactivity.

C. S. R.


Two postencephalitic Parkinsonian cases without tremor have been studied clinically and anatomically. The most pronounced changes were found in the substantia nigra. Minor changes were present in the pallidum. There was a status cribratus in circumscribed areas of the striatum and in the cortex. In the white matter of the brain and in the globus pallidus and in the spinal cord a slight degree of diffuse demyelinization was present.

R. G. G.


Fifteen cases of Huntington’s and arteriosclerotic choreas were investigated. In eight of these, in addition to the usual neural structures involved in this disease, a dense gliosis was found in the white matter of the occipital lobe. Visual defects or hallucinations could not be demonstrated clinically. This type of gliosis was not observed in the white matter of the occipital lobes of normal individuals.

C. S. R.

SENSORIMOTOR NEUROLOGY


A woman’s left prefrontal lobe had been partially destroyed by a tumour, and her right prefrontal lobe had to be amputated in order to uncover and excise the tumour. Later findings of possible significance are here given. As regards the general intelligence level, there was marked slowness and
deliberateness with the Arthur performance tests. An apparent perseveration was noted, whether in the realm of ideas or activities, once the idea was formulated or the action initiated. There was an increased capacity for work and physical exercise without fatigue and no evidence of unusual mental fatigability, also a noticeable lack of anxiety about anything not of immediate concern to her, and, as well, more self-assertion. The patient flared up easily at her children and husband, but not at others. Also, according to her husband, there was a recent tendency to indulge in vulgarity—not previously seen. She carried out her usual household duties, but preferred ‘quantity’ production to ‘quality,’ though she was capable of the latter. The patient has learned to speak and read English better since the operation. The author concludes that in this case the brain, with possibly three-fourths of all pre-frontal lobe destroyed, appeared to find difficulty in registering more than one stimulus at a time. This finding, he thinks, is not inconsistent with the conception that the frontal lobes enable us to become aware of an increasing number of simultaneous impressions.

C. S. R.


Several workers, dissatisfied with the theory of the localization of function in the brain, have put forward the view that all symptoms are due to one fundamental disturbance of a general nature. This, however, is not in accordance with the clinical facts. It is pointed out in this paper that even in diffuse brain lesions it is possible to discriminate between the different types of general disturbances. These types and the combinations between them are described.

A similar analysis is made of the so-called catastrophe-reaction of Goldstein, i.e. the response shown by patients with organic disease in situations which are too much for them. Various forms of this behaviour are described. Discussion of the relation between general disturbance of function and the catastrophe-reaction leads to a reexamination of the concept of focal symptoms. This concept is still found to be justified even in the case where general disturbances are caused by focal lesions; it is a problem of the interplay of focal symptoms. The psychiatric conception of syndromes is therefore suggested as applicable to the symptomatology of organic brain lesions.

C. S. R.


An important contribution in which the author seeks to simplify the conceptions of cerebellar function. In his view the special task of the cerebellum
is to support by coinervation the performance of higher levels, namely, the voluntary purposeful performances which are determined by the whole organism, and automatically to maintain these movements and postures if the situation demands it, e.g. when attention is otherwise absorbed so that we are not able to innervate voluntarily. This coinervation function is especially concerned with flexion and adduction performances.

In lesions of the cerebellum negative symptoms consisting in disturbances of supracerebellar performances particularly conditioned by the forebrain are found, and also positive symptoms—phenomena consisting of abnormal exaggerated reactions of the organism, particularly of the subcerebellar apparatus, to stimuli.

Various symptoms are discussed, but it is pointed out that when the cerebellum is out of action extension and abduction performances are exaggerated, and these are the reactions characteristic of responses to stimuli coming from the outside world. The subcerebellar centres are chiefly responsible for these reactions.

The failure to maintain uncomfortable postures in cerebellar lesions is due to the lack of support for the forebrain activity. Such lack of posture maintenance is specially noticeable when attention is diverted.

R. G. G.


The evidence pointing to the existence of congenital arithmetic disability similar to congenital reading disability is discussed. Recent observations indicate the occurrence of arithmetic disturbances (called by Henschen 'acaculcia') after focal cerebral lesions. This symptom has been especially noted within the so-called parietal syndrome, occurring there with constructional apraxia, agraphia, disturbances of naming colours, etc. Such a case is described here. In some children with arithmetic disabilities, a similar combination of symptoms is demonstrable, and from this it is argued that cases may be regarded as specific arithmetic disabilities, arising from structural or functional anomalies of the brain.

C. S. R.


Pain in multiple sclerosis and, in fact, neuralgia of any type are rare. Other sensory disturbances, such as numbness and paraesthesias, are comparatively common and probably occur at some period in the course of the disease in a majority of patients.

The pathogenicity of face pain in multiple sclerosis is unknown. The
theory that it may be due to plaques of sclerosis in the pons, medulla or the
descending spinal root of the fifth cranial nerve is unlikely in view of the
relief obtained by alcoholic injection or sensory root avulsion peripheral to
these lesions. It is further refuted by the cases of multiple sclerosis reported
in which lesions similar in type and location were discovered with no face
pain whatever recorded in the history of the patient.

Twenty-five cases of concomitant trigeminal neuralgia and multiple
sclerosis were encountered in a review of the subject in the literature of the
last 17 years. In some the facial pain preceded the symptoms of multiple
sclerosis, whereas, in others, the reverse was true. It is probably a fact that
trigeminal neuralgia, complicated by multiple sclerosis, is more apt to be
bilateral—not necessarily simultaneously so—than is the ordinary case of
the former disease.

Two additional cases are reported in some detail, one of which had
bilateral trigeminal neuralgia at different periods. Both of the cases were
operated upon with subsequent complete relief of their pain for the length
of time each has been followed (one year). There is no reason to believe
that the pain will recur. Trichlorethylene inhalations and alcoholic injections
were also effectual in temporarily relieving the pain in these two cases.

As far as can be determined, the modern methods of treating trigeminal
neuralgia in the ordinary case are just as effective in the treatment of cases
complicated by the occurrence of multiple sclerosis.

R. G. G.

[35] A contribution to the clinical study of the pyramidal syndrome (Contri-
buto allo studio clinico della sindrome piramidale).—C. Trabat-
toni. Riv. di pat. nerv. e ment., 1935, 46, 663.

The author has made a clinical study of the pyramidal syndrome pursuing
his researches in two directions, viz., (a) the value of pyramidal signs in the
hand and (b) of crossed signs in hemiplegia. Fifty-seven patients suffering
from hemiplegia or hemiparesis were examined. This was left-sided in
30 cases and right-sided in 27. Some normal individuals and patients suffering
from other nervous diseases were also examined.

There is no reliable skin reflex in the hand corresponding to those in the
feet.

The reflexes of Léri and of Mayer, and in a less degree the inverted
Léri reflex, can effectively indicate by their absence or by the difference
between the two sides the existence of a disturbance in the field of motor
innervation of the upper limb. The signs of Klippel-Weil and of Wartenberg
may occasionally be recognized on the paralysed side. Compared to those of
the foot the reflexes in the hand are much less constant and much less in
accordance with the severity of the lesion. In various neurological lesions
the phenomena in the hand are not of any very significant diagnostic value.
With regard to crossed signs the author comes to the conclusion that disturbances of elementary movement can exist in the healthy side and are specially put in evidence by isolated movements of the affected limb. This is due to homolateral affection of the central motor neurone in right-sided hemiplegia in right-handed people.

R. G. G.

Cushing's disease and Recklinghausen's disease (Morbo di Cushing e morbo di Recklinghausen).—C. PERO. Riv. di pat. nerv. e ment., 1936, 47, 183.

After reviewing the clinical and anatomical features of Cushing's disease, the author describes a case of dystrophia adiposogenitalis showing signs of Recklinghausen's disease as well, with osteoporosis, increased globulin in the spinal fluid, atrophic red marrow, but without hypertension or hypertrichosis. In this case hypercalcæmia with hypophosphatæmia and increased calcium in the urine were found.

The author points out that this picture of the mineral content of the blood is characteristic of the osteitis fibrosa of von Recklinghausen and that since this case as well as others described in the literature has clinical manifestations of Cushing's disease, he presumes there is a relationship between the two diseases and that they may be considered as one syndrome, specially characterized by the hyperparathyroidism of Cushing's disease. He discusses the doubts of himself and others as to the connexion between Cushing's disease and basophil adenoma of the pituitary. He finally discusses therapy.

R. G. G.

Medical and surgical aspects of Charcot joints.—SAMUEL H. EPSSTEIN. Amer. J. Syph., 1936, 20, 386.

This article is a general discussion of Charcot joints, with illustrations from two neurosyphilis clinics. Emphasis is laid on the rôle of the orthopaedic surgeon in the treatment of this condition.

Certain striking features of the disease are illustrated by the case-reports, which include an unusual Charcot involvement of the shoulder. In the author's experience Charcot joints occur for the most part in apparently stationary or arrested cases of tabes and the condition is not accompanied by any marked symptoms of tabetic disease. The local joint condition is usually the presenting symptom and these patients seldom come to the clinic for symptoms referable to disease of the central nervous system. Charcot joints are often multiple and patients develop a second or even a third arthropathy actually during treatment. It is an important fact that serological abnormalities in blood and spinal fluid are present much less frequently than in tabetics without Charcot joints. Antisyphilitic treatment alone is not
sufficient to check the progress of the joint disease. In every case cited orthopedic measures were finally resorted to, and in some instances successful functional results were obtained.

Author's Abstract.

PROGNOSIS AND TREATMENT


After having observed and studied numerous cases of encephalic traumatism, haemorrhage, thrombosis, and embolism, in different periods of their progress, the authors have arrived at the following conclusions:

1. By some means not yet explained we may influence the focus of cerebral haemorrhage and correct its effects to a considerable degree, and sometimes even totally, by intramuscular injections with the patient's own blood (autohaemotherapy).

2. The operation consists in withdrawing 25-30 c.cm. of blood from a vein of arm or foot, and in reinjecting it deeply into the gluteal region of the sound side. Before puncturing the vein, it is advisable to fill into the syringe a few cubic centimetres of a 25 per cent. solution of citrate of sodium, in order to prevent a premature coagulation of the blood.

3. The intramuscular autohaemotherapeutic injections are haemostatic and useful for curing cerebral haemorrhage and its effects in all cases, whatever the origin of cause of the haemorrhage, whatever the patient's age, and the time of attack. The beneficial effect varies in degree, but is constant.

4. Recovery is to be observed even in most acute cases, especially in those of traumatism of the head with genuine cerebral haemorrhage. The effects will be the better, the sooner curative intervention is attempted.

5. Autohaemotherapy helps to cure cerebral haemorrhage before, during, and after ictus. It is most indicated as a preventive cure in cases of arterial hypertension with predisposing hereditary conditions; for arteriosclerotic patients who often preannounce ictus by vertigo, debility of limbs, unilateral tremor of extremities. These effects are avoided and immediately corrected after the injection, which suddenly brings down intracranial blood pressure.

6. The blood injection allows a differential diagnosis between real cerebral haemorrhage and cerebral softening. Although cerebral haemorrhage is perhaps more frequent than softening and the symptoms are often identical, they may be distinguished because the curative effect is great with foci of cerebral haemorrhage and nil with cases of cerebral softening.

7. Theories about haemotherapy are numerous and vague. The nature of the action of these blood injections on circulation and capillary congestion in general and the reasons for the sometimes rapid disappearance of the symptoms are unknown.

R. G. G.