
The technique described by the authors consists in staining paraffin sections of nervous tissue with cryptocyanine and taking photographs on specially sensitised plates using a very deep red Wratten filter, nos. 87, 88 or 88a. The method gives excellent pictures of neuroglia fibrils, but its chief value has resided in the demonstration of mitochondria in normal and pathological nerve-cells. This structure had been studied by Cowdray in the nerve-cells of the dorsal root ganglia, but had not been previously described in the nerve-cells of the central nervous system. Unlike the Golgi apparatus it does not alter its appearance during the phenomena of chromatolysis, but it becomes lost when the cell is filled with lipochrome as in amaurotic family idiocy and senile dementia.

J. G. G.

Sensorimotor Neurology.

Holmgren's frontal reflex (Beitrag zur Kenntnis des Holmgrenschen Frontalreflexes).—Albert Gronberg. Acta. med. Scand. (Supplementum), 1928, xxv.

Holmgren's frontal reflex is constituted by a bilateral elevation of the eyebrows elicited by rubbing or stroking the skin of the brow near the midline. In this way the phenomenon belongs to the group of supraorbital reflexes examined previously by MacCarthy (1901) and Bechterew (1903). The author has studied the behaviour of Holmgren's reflex in 444 individuals, comprising 300 normal subjects and 144 patients suffering from various diseases.

The main conclusions of the author may thus be tabulated:

1. A phenomenon simulating a positive frontal reflex (Fr. R.) can occur in cases without brain disease.
2. A positive or negative (Fr. R.) is not connected with any particular clinical picture.
3. Aphasia is more often combined with a positive than a negative (Fr. R.); an extrapyramidal type of tremor is very frequently associated with a positive Fr. R.
4. The Fr. R. behaves in states of lethargy and coma as other reflexes, i.e., it disappears when the coma is deep.
5. A positive Fr. R. is seen in general intoxications; in injuries of the cortex and meninges; in diseases of the basal ganglia accompanied or not by cortical lesions.
6. No certain anatomical localization has been traceable as the basis of a positive Fr. R.
7. When increased mechano-muscular irritability is demonstrable, a cerebral lesion must not be presumed, even though a positive Fr. R. be present. Despite the equivocal nature of Holmgren’s frontal reflex and its presence in the normal subject, the author has devoted a monograph of 190 pages to its study.

M. C.


A case is recorded of a woman, who, following an acute febrile illness involving lungs, stomach and kidneys, developed weakness of the legs and also of the muscles of the shoulder girdle. The distribution of the weakness was more or less that of a myodystrophy. Over and above this she developed an extreme degree of salivation; this was also associated with tachycardia and prominent eyes. The author proceeds to review Bramwell’s Bradshaw Lecture and to epitomize the work of Kuré on the muscle changes produced by section of the sympathetic fibres. The description of his case is too meagre, and we are left with a feeling of doubt as to the precise character of the muscle weakness. Further, to diagnose encephalitis on excessive salivation alone is somewhat precarious.

E. A. C.


The cases of the homologous twins described at great length in this paper are of much scientific interest. From the standpoint of identical twins the two children, boys, age eight when examined, are as good examples of the condition as can be imagined. According to the author, they offer evidence of ‘inverse symmetry,’ while their somatic and psychical development is for practical purposes identical. Neurological examination reveals merely a degree of dyspraxia. They hear quite well and exhibit no signs of organic affection apart from their ‘congenital aphasia.’

This consists in a characteristic congenital auditory imperception, and it is given full description and analysis. The literature on the subject is reviewed (not, however, with any completeness) and the author states he has found no instance of the affection recorded before in identical twins. From the viewpoint of pathogenesis he argues that some germinal modification is responsible for the condition and that it must have a definite anatomical basis. What this may be, however, is not discussed in any detail.

S. A. K. W.

Professor Marinesco and his colleague have conducted a long series of clinical investigations on the respiratory complications of epidemicencephalitis and have formulated the following conclusions, among others:

1. The varieties seen include micropnoea, bradypnoea, tachypnoea, respiratory rhythmias and respiratory tics.
2. Cheyne-Stokes rhythm is very rare in this connexion; it has been met with once, persisting for no less than two years without modification.
3. Another rare sequel is a combination of apnoic intervals with spasms of the musculature of the trunk.
5. By utilising various clinical experimental methods the authors have shown that most of the phenomena are due to abnormal function of the respiratory centres in the regio mesencephalo-hypothalamica.
6. On the other hand, bulbar respiratory centres appear in all instances to be in a state of functional integrity. During sleep there is evidence that the abnormal condition of the former interferes with the regular automatism of the latter.
7. A threefold division is suggested into (a) respiratory disorder secondary to respiratory rhythmias and tics; (b) secondary to functional impairment of upper respiratory centres; (c) secondary to disturbance of emotional expression.

J. V.


The authors believe that two factors are essential for the production of a serous meningitis, viz. a predisposing factor of endocrine, vegetative or vascular character, to which is added a determining action of toxaemic or infective nature. Four clinical points are of diagnostic value, particularly in differentiation from cerebral tumour. The authors emphasize the early appearance of papilloedema; hypertension of the cerebrospinal fluid with an Ayala ratio greater than 6; the paucity or lack of localizing signs, and the presence of somnolence. Treatment comprises lumbar puncture at intervals of three or four days, performed not more than three times altogether. A larger number of lumbar punctures tends to cause an increased production of fluid. At the same time, injections of hypertonic serum glucose (20 c.c. of a 33 per cent. solution) are given once or twice daily. In one case daily injections of atropine (1mg.) were also prescribed. Cases with a syphilitic basis also require appropriate specific
measures. If no recession is demonstrable in the degree of disc swelling at
the end of two weeks, X-ray treatment is tried. When this also is unsuccessful
a decompressive operation is indicated.

M. C.

[219] Myeloradiculitis.—I. STRAUSS and A. M. RABINER. Arch. of Neurol.
and Psychiat. 1930, xxiii, 240.
The clinical syndrome, for which the above term has been coined, is character-
ised by the rapid development of motor and sensory signs, indicating a pre-
dominant involvement of the nerve roots and a varying implication of the cord
substance. In several of the authors’ seven cases infection of the upper respira-
tory tract was a prominent feature and in all recovery was extraordinarily
prompt and integral.
The symptomatology of these cases bears a close resemblance to that of
several analogous syndromes and notably to those described during the War
as ‘acute infective polyneuritis.’ The points of difference are few and probably
the group of cases presented by Strauss and Rabiner are simply variants of the
former pathological process.

R. M. S.

[220] A pseudopolyneuritic variety of disseminated sclerosis (Sur une forme
The case described is that of a young man of 28, who exhibited quite typical
symptoms and signs of disseminated sclerosis and in addition developed
peripheral amyotrophy with diminution or loss of tendon reflexes. Firm
pressure over peripheral nerves caused pain, and subjective pains were also
present.

Autopsy revealed the characteristic picture of subacute disseminated
sclerosis. Further, mild interstitial neuritis was found in several nerve trunks
examined. An emulsion from the cord, injected into the sciatic of rabbits,
produced a well-marked local periaxial segmental neuritis.

It is claimed that the case proves the possibility of invasion of the peripheral
nervous system by the virus of the affection.

J. V.

[221] Polyradiculoneuritis with albumino-cytological dissociation and bilateral
facial palsy (Polyradiculonévrite avec dissociation albumino-cyto-
logique et paralysie faciale double).—H. HENDRICK. Jour. de
neurol. et de psychiat., 1929, xxix, 584.
A male patient, aged 49, with uneventful previous health, became ill with an
irritation in the throat and a cough. About two weeks later he was awakened
by pain in the loins and he noticed that everything he touched seemed icy cold.
The pain persisted and the legs became weak, so that at the end of two days he was unable to walk. Sphincter disorders appeared at the same time. Facial asymmetry and difficulty in mastication appeared a week later. Examination demonstrated a right-sided facial paralysis of peripheral type. Diplopia was present on looking to the right. The neck muscles were stiff and attempts at passive manipulation evoked pain. There was marked rigidity of the spine and Kernig's sign was demonstrable. Palpation of the muscles was very painful; a hyperaesthesia existed over the trunk, and on the right side of the abdomen light touch produced a sensation of burning. The triceps and supinator perculs were unobtainable; the lower abdominal responses were feeble; cremasteric reflexes were absent; knee-jerks were sluggish, and ankle-jerks absent. Plantar stimulation was followed by a general withdrawal of the whole lower limb. Gross sensory incoordination was present. Power in the arms was somewhat reduced. The cerebrospinal fluid was clear and gave the following results on analysis: 2 lymphocytes per c.mm.; albumin 85 mg. per cent.; glucose 80 mg. per cent. Whilst under observation the patient developed a left-sided facial palsy. The pains improved and the power of walking returned. The stiffness of the neck disappeared and Kernig's sign became difficult to elicit. Myoclonic jekings appeared in the muscles of the face, the deltoids and infraspinati. Hyperaesthesia of the trunk was no longer present; the knee-jerks became normal but the ankle-jerks remained in abeyance.

M. C.

[222] Chorea and lenticular nucleus (Chorea und Linsenkern).—NISSL VON MAYENDORF. Monats. f. Psychiat. u. Neurol., 1930, lxxiv, 273. A very elaborate study of the case of a feebleminded woman of 26, with involuntary movements of choreo-athetoid type, especially on the left side, complicated at times with others more of the tremor variety, is reported in this interesting communication. Autopsy showed a region of cortical and subcortical softening and loss of substance situated in the right hemisphere, immediately behind the postcentral gyrus about its middle, and extending posteriorly into the upper parietal lobe. In addition, however, a number of much smaller lesions were present (third right frontal, above the red nucleus, in the transverse temporal gyri, etc.).

More than 50 pages of the article are taken up with pathological descriptions. It is shown in a conclusive manner that neither corpus striatum nor system of the superior cerebellar peduncle has in this case anything whatever to do with the choreic symptoms of the patient. The author justly argues that the striatal theory of chorea cannot be sustained.

S. A. K. W.
The value of hyperpnoea in the diagnosis of epilepsy

In a series of 41 cases of epilepsy, the author has experimented on the precipitation of an attack by means of hyperventilation of the lungs. He concludes that hyperpnoea is a harmless measure which is capable of provoking certain reactions in chronic epileptics. Before it can be regarded as a pathognomonic test for epilepsy the basic optimal factors will have to be established; in the interim, the author suggests that the hyperpnoea be maintained for half an hour. Failure of over-ventilation to produce an attack does not rule out the diagnosis of epilepsy; positive results were obtained in only 15 per cent. of his cases. Motor and sensory symptoms, and even disorders of consciousness, can occur with the hyperpnoea, both in epileptics and in normal subjects; only manifestations of an essentially epileptic order can be regarded as constituting a positive result.

M. C.

Paraplegia in flexion

Although paraplegia in flexion was described as long ago as 1837, its association with subacute combined degeneration has only once been recorded. To that case the authors add another in which the lesions were largely in the postero-lateral aspects of the cord. Extensive degeneration of the pyramidal tract was observed and in this it differed from the majority of cases reported in the literature.

An additional point of interest was the observation that withdrawal of spinal fluid markedly aggravated the condition.

R. M. S.

Anterior sacral meningocele

In reporting this case the author refers to the rarity of the condition and to the frequency of mistaken diagnosis. In the present case the diagnosis of sarcoma was made. Infection of the sac with B. coli followed the operation performed to remove the tumour, and the patient died of generalised meningitis.

J. G. G.

Nerve-stretching in diagnosis

A careful study has been made in the cadaver as to the best way to cause stretching of the peripheral nerves. Excellent descriptions along with illus-
ABSTRACTS

trations are given as to the technique best adapted for the purpose. The application of this method of investigation to clinical medicine, is of doubtful value, except in cases of peripheral neuritis: it may be an aid in differentiating peripheral from central lesions, but most observers will prefer to depend on other criteria than stretching peripheral nerves.

E. A. C.


Congenital facial paralysis is divisible into (1) cases of obstetric origin, and (2) those of spontaneous or non-obstetric origin. The former includes paralysis from forceps trauma and from antepartum or intrapartum compression. Forceps cases are usually unilateral and peripheral. It is stated, none the less, that central paralyses of this kind are known, but rigid proof of their nature is not perhaps forthcoming. The prognosis is favourable.

Antepartum compression results from pressure of the head of the foetus against its own shoulder, or against maternal bony prominences. The intrapartum variety consists of peripheral facial palsy associated with evidence of injury in the region of the nerve, such as oedema, extravasation of blood, and depressions in the skull. The prognosis of the latter cases is as a rule satisfactory; of the former, doubtful.

The spontaneous type is thought to be due to agenesis of the nuclei of the seventh nerve on one or both sides, symptoms varying within rather wide limits. Other cranial nerves, e.g. the sixth and the twelfth, may be similarly affected. Cases of uncomplicated bilateral facial paralysis of nuclear origin are not common; the authors here report a personal case.

J. S. P.


The interest of this article resides in its detailed description of encephalographic technique and on the claims made for its clinical and surgical value. Encephalography is stated to have led to the recognition of gross organic changes in the structure of the brain where these have given few, if any, symptoms to indicate their presence or extent. Epilepsy is a field which has been particularly fruitful in that about 80 per cent. of 'idiopathic' cases, in which encephalography has been undertaken, have shown pronounced abnormal changes. The operability of a given case may depend to a large extent on what the encephalogram reveals.

From recorded and personal observations it is remarked that the mortality of the procedure is less than 2 per cent. The authors have undertaken it in cases ranging in age from three months to 84 years, without danger. The
intense headache accompanying the method can be controlled by administration of 15 grs. of chloral hydrate one hour before encephalography, and can be repeated in four hours. Codeine is also recommended. J. S. P.

PROGNOSIS AND TREATMENT.


With regard to the administration of peptone, it is impossible to say which cases have reacted well. Generalizing, it might be safe to say that the younger cases showed a slightly better result. In only one case over 40 years of age was there any decrease in fits. There was a slight tendency for the fit to change from the major to the minor type. Peptone treatment seems to have warded off the stage of dementia and the cases so treated were much more manageable. Where patients have not reacted to peptone, or where its effect has not been sustained, intravenous injections of B. coli have been carried out. There was a marked improvement in the health of the skin and alimentary canal, and a decrease of fit-incidence. One patient had his number of fits halved. Where no benefit accrued from either of the foregoing treatments, a solution of papaverine sulphate (gr. 1 to oz. ½ was given). The action of the drug seems somewhat remote and cumulative. Two demented female epileptics became more tranquil, had fewer fits, and showed less tendency to relapse into stupor. In each case, the pre-epileptic period was less troublesome.

C. S. R.


The use of the diathermy current in cerebral surgery is discussed and its advantages expressed. Freedom from hemorrhage and piece-meal extirpation are the benefits of this form of surgical technique. In the author's hand the method has proved of inestimable value. Tumours have been successfully removed with little or no damage to the surrounding healthy brain tissue. Undoubtedly, this advance in cerebral surgery is of great importance and offers a more hopeful prognosis in those cases which have been previously considered hopeless.

E. A. C.

[231] The adoption of a lordotic-kyphotic position for the spinal column in the acute stage of poliomyelitis (Die Spannungsverhältnisse des Rückenmarks bei lordotischer und kyphotischer Einstellung der Wirbelsäule und ihre Bedeutung für die Behandlung des akuten Stadiums der Poliomyelitis).—FRANZ BECKER. Münch. med. Woch., 1929, lxxvi, 1547.

In order to produce relaxation of the meninges and avoid stretching of the spinal cord, the best position of the vertebrae is one of lordosis. The author