that found in certain somatic disturbances, such as diabetes mellitus. This abnormality of carbohydrate metabolism appears to be phasic and to disappear with clinical recovery. It therefore seems that in this condition the patient is affected physiologically as well as psychologically, but whether the physiological factor is primary or secondary to the mental symptomatology is uncertain. In view of the diminished basal metabolic rate the disturbance in carbohydrate physiology probably represents merely a single manifestation of a general metabolic depression.

R. M. S.


Richter measured the electrical skin resistance in twenty-six normal persons and in sixty-six psychopathic patients. The normal subjects gave records which remained fairly constant. In marked contrast, many of the patients presented records with large individual differences and at the same time great variation from the normal. These patients were all either catatonic or schizophrenic. The schizophrenic patients with marked feelings of passivity deviated to one extreme; those of the active or paranoid reaction type deviated to the other. The records from manic-depressive and hysterical patients deviated slightly, but were still within the limits of normal variation.

R. M. S.

PSYCHOPATHOLOGY.


If a tyrosine bouillon tube is inoculated with faeces from a healthy person, incubated for 48 hours and distilled, it will be found to contain phenol of not more than 0.008 per cent., or at the most 0.015 per cent. If, on the other hand, similar cultures are made from mental patients, they will contain 0.02 to 0.06 per cent. in half of the specimens examined. At least one-quarter of mental patients who are acutely ill carry B. Morganii: a smaller proportion carry B. phenoligenes (Berthelot), and a still smaller proportion a phenol-producing paracolon. B. Morganii is the important phenol-producing bacterium of the insane. The strains of B. Morganii found in these cases do not cause diarrhoea, but the dead bacteria are toxic to man, causing marked local, and in some cases general reaction, when moderate doses are injected hypodermically. After intravenous injection of minute doses they cause pyrexia, and if the dose is larger or the kidneys already diseased, a transient nephritis.

As far as it is possible to judge by the few cases treated, efficient vaccination (hypodermic followed by intravenous) can remove B. Morganii from the bowel. Such removal is followed by improvement in bodily health and possibly improvement of the mental condition.

C. S. R.
[64] The erythrocyte sedimentation reaction: its value in psychiatry.—J. Goldwyn. Arch. of Neurol. and Psychiat., 1928, xix, 110.

By erythrocyte sedimentation reaction is meant the speed with which the red blood cells settle in a column of citrated blood. The phenomenon has been found of definite clinical value in the field of general medicine, in surgical investigations and in obstetric and gynecological studies. The author applied the reaction in different forms of mental disorder; his conclusions are as follows.

1. The acceleration of the erythrocyte sedimentation reaction varies directly with the amount of mental deterioration, the amount of organic destruction and the amount of toxicity present.

2. Unless the cases are complicated by physical disease, the sedimentation reactions are normal in cases of manic-depressive psychosis, psychopathic personality, psychoneurosis and paranoia.

3. Increased readings are found in all cases of senile psychosis, psychoses due to cerebral arteriosclerosis, general paralysis, neurosyphilis, psychoses showing mental deficiency or somatic disease, acute types of alcoholic psychoses and in many cases of epileptic psychosis and involutional melancholia.

4. In dementia praecox the simple and paranoid types tend to give normal readings, while the hebephrenic and chiefly the catatonic types tend to give slightly accelerated reactions. Cases showing marked mental deterioration give increased readings. No case of dementia praecox gave a marked increase unless complicated by some physical disorder.

5. The sedimentation reaction is of limited aid in psychiatric diagnosis.

6. Because the sedimentation test is a reliable and efficient indicator of many somatic diseases, it is of practical value in dealing with psychotic patients.

R. M. S.


Paracolon or mutabile is to be found in 30 to 40 per cent. of mental patients, and in 17 per cent. of these patients the bacteria in question make up from 10 to 100 per cent. of the coliform flora. Carriers of paracolon-mutabile are at least four times more common among the insane than in the general community. Paracolon-mutabile occur in all forms of insanity, but more frequently and abundantly in acute illness than in chronic. In some recurrent cases which have been closely studied they are absent or few in number during intervals, increase rapidly at the onset of an attack, fluctuate with the symptoms, and disappear at convalescence; nevertheless in one and the same patient they may be present in large numbers in one attack and absent in the next.

The increase of these organisms is probably due to some change of environment in the bowel—a change which acts either by causing massive variation from colon to paracolon-mutabile, or by favouring overgrowth of small numbers
of the latter bacteria which may already be present. The change of environment postulated may take origin either in the secretions of the host or in those of some other intestinal micro-organism.

As to the practical question whether paracolon and mutabile take any part in producing mental disease, it is clear that the association which seems established between mental disease and increase of these organisms may be one of three alternatives: (1) a constitutional basis of mental disease may alter the secretions of the patient and so evoke the bacterial change. (2) The increase of paracolon-mutabile may be one of many causes capable of upsetting an unstable nervous system, and we have seen that paracolon-mutabile are actually more toxic than normal colon. (3) A substance, such, for example as phenol, if formed in the intestine may give rise to an increase of paracolon-mutabile, and after absorption cause the mental illness. Metchnikoff, in 1910, showed that phenol combined with sulphuric and glycuronic acid is lethal to guineapigs, and produces arteriosclerosis if given over long periods in sub-lethal doses. Wladytchko also found proliferation of neuroglia and neurophagia in the brain of a guineapig which had been treated in this manner. It is possible that all three modes come into play in a series of vicious circles.

C. S. R.

[66] Investigation of the permeability of the brain membranes in cases of mental disorder.—Herbert A. Strecker. Jour. of Ment. Sci., 1928, lxxiv, 73.

In 22 cases of general paralysis the P.Q., i.e., the ratio of bromide found in the blood compared with that found in the cerebrospinal fluid, was below the normal average in 82 per cent. of the cases, although a few showed markedly decreased permeability. In 30 cases of dementia præcox the P.Q. was above the normal average in 36 per cent. of the cases, below in 30 per cent., the remainder being normal. N.A.B. treatment resulted in a definite increase of the permeability. The average P.Q. of five cases of delusional insanity and three cases of mania and manic-depressive insanity was normal. C. S. R.


The authors have found that iron pigment is not confined to the perivascular sheaths of the cortical vessels in general paralysis but may also be demonstrated in the adventitial cells of the cerebrospinal fluid. The method is as follows:

Centrifuge 5 c.cm. of cerebrospinal fluid. To the sediment add 5 c.cm. of the following solution:—

96 per cent. alcohol, 95 c.cm.;
aqueous solution of ammonium hydro-sulphide, 5 c.cm.

Centrifuge again and examine deposit. Iron is indicated by the presence of deep-black granules in the adventitial cells. Black particles elsewhere are without diagnostic significance. The reaction appears to be specific for general paralysis.

R. M. S.
Spirochaetosis of the central nervous system in general paralysis.—

A case of juvenile paralysis is described as an example of Jahnel's vascular type of spirochaetosis. The vast number of organisms and their general topographical distribution, their presence in the principal regions of the cortex, in the basal ganglia, and in the cerebellum, is an unusual instance of such intense and widely disseminated occurrence. The brain seems to be the most favourable medium for the growth of the spirochaeta pallida. The localization of the swarms within the cortex at the level of the middle zone is in direct relation to the complex capillary network existing between the long and short branches of the cortical blood-vessels. The absence of organisms within the white substance of the convolutions, the presence of great masses of them in the middle zone of the cortex and the smaller subpial colonies, suggest that the lymph carries some organisms outward towards the arachnoid. The metastasis of spirochaetes undoubtedly occurs lymphogenously in a local sense, and hematogenously in a wider sense. Cases of intense spirochaetosis are found when death occurs during a period of mental confusion, the remission indicating a period of lessened organismal activity. Thus there exists a correlation between clinical course and spirochaetosis. It is believed that physical factors and the mechanical effects induced thereby have an influence upon the peripheral vascular arrangements of the spirochaetes, in addition to the lymphophilic factors. The histopathological alterations of the basal ganglia in direct relation to the spirochaetosis lead one to believe that the primary invasion by the organisms is into this region. The spirochaeta pallida is in relation to both vascular systems, whereas the virus of lethargic encephalitis most commonly affects the ganglionic division alone. The choroid plexuses were negative for spirochaetes.

C. S. R.


The author remarks with justice on the disadvantages of the prevailing tendency to attempt to associate limited defect of function with specific lesion in cases of brain injury or disease. Such "general" symptoms as have been noted in these cases are usually considered to concern memory, attention, volition, and so forth. But alterations in the personality as a whole, in general demeanour and conduct, have received less notice, although from time to time they have been made the subject of investigation. In this communication the author gives the results of his study on the attitude adopted by the sufferer towards his own defects, and on his insight into his own condition. It is pointed out how frequently he is unaware of his infirmity in the first place, and
how frequently he is capable of greater degree of function that might be expected from isolated examination of the particular defect concerned. One explanation of the latter circumstance is that a certain restoration of balance as between individual and environment takes place; the organism that is restricted in function by disease or injury develops an altered relation to environment. Such changes as would threaten the continuance of important functions are involuntarily ignored: the patient "rises superior" to his blindness, deafness, and so on, rendering his milieu more adequate to his restricted activities.

A careful description is also given of certain peculiarities in the conduct of these patients—their tendency to seek quiet, their orderliness, their discomfort in the absence of concrete stimuli, their avoidance of empty space. This last feature is of no little interest and is well exemplified in the clinical illustrations supplied.

S. A. K. W.


Epidemic encephalitis may first manifest itself in an acute psychotic reaction. This may be either a delirium or of an occupational nature, or may consist of episodic outbreaks of silly excitement, impulsive acts, delusional or bewildered states, confusion and marked fear. The subsequent appearance of neurological symptoms helps the observer to arrive at the correct diagnosis. A review of the literature and illustrative cases are presented.

C. S. R.


Study of the literature and of fifteen cases at the Boston Psychopathic Hospital has revealed no unequivocal evidence of a fundamental relationship between the symptoms and the patient's personality prior to the encephalitis, although the clinical picture may be superficially coloured by his individuality and environmental experience. The antisocial behaviour and emotional instability of the encephalitic seem to be chiefly the result of a pathological defect in the ability to control impulses which are common to the race, rather than the product of the disease and a specially conditioned personality. Many symptoms found in encephalitic psychoses resemble closely those in autochthonous disorders, especially schizophrenia; but the parallelism of the fundamental features of such diseases appears to be exceptional. Parkinsonism and impairment of general intelligence are common, in adults as well as in children with psychotic features. The patient's consciousness of mental and physical inferiority, and his responsiveness to enlightened discipline, have been too little emphasized.

C. S. R.
[72] **Peduncular hallucinosis** (L’hallucinose pédonculaire).—L. van Bogaert.  
*Revue neurol.*, 1927, i, 608.

The author’s case is that of a woman with evidence of a left hemiplegia, which under treatment gradually improved, but other symptoms were present, such as an ataxic gait, tendency to falling backwards, adiadochokinesis, nystagmus; in addition, hypomaniac attacks occurred in the evenings, with visual hallucinations. The details of the case were furnished at greater length in an earlier communication (*Revue neurol.*, April, 1924).

At autopsy was found an area of softening involving the regio subthalamica, cerebral peduncle, nucleus ruber, and extending to the anterior corpora quadrigemina and the pulvinar of the thalamus, in a forward direction, and to the upper part of the pons posteriorly. The author attributes the whole symptomatology of his case to the discovered peduncular lesion. In his own words: “Here is a syndrome of visual hallucinosis and of evening hypomania occurring with a lesion strictly peduncular, and the practically complete integrity of the cortex and subcortical nuclei has in this case the greatest significance.” He proceeds to an interesting if speculative discussion on the possibility of mental symptoms of extracortical origin, basing his deductions on his interpretation of the case.

The reviewer feels that these deductions raise in an acute form the question of principles of localisation, and of attribution of symptoms solely to recognisable structural lesions. In his opinion it is a mistaken conception which sets down positive symptoms to negative lesions and ignores the possibility of alteration of function in mechanisms whose anatomical basis is not the seat of obvious structural change.

S. A. K. W

[73] **Mental disorder in cardiac disease.**—Carey F. Coombs.  
*Jour. of Ment. Sci.*, 1928, lxxiv, 250.

The author concludes that there is no evidence that cardiac disease can, unaided, cause insanity. There is reason to believe that mental disturbances can cause cardiac disorder, but whether these can go further and establish organic change appears uncertain. Many morbid processes affect both heart and brain, and thus account for some of the coincidences between cardiac disease and insanity.

C. S. R.

[74] **Pellagrous insanity.**—T. C. Cooper.  

The relationship which various nervous and mental disturbances bear to pellagra has not as yet been definitely settled. Only 4 to 10 per cent. of pellagrins are said to develop a psychosis and it is often impossible to determine whether the pellagra is the primary condition and the psychosis secondary or the reverse. The majority probably belong to the latter. There is no symptom-complex that can be said to be pathognomononic of pellagrous insanity.
Probably the first and most persistent mental symptom is that of a mild depression combined with a certain amount of apathy. A pellagrous mania has been described, but neither of these conditions is characteristic of the manic-depressive psychosis. In the early stages the depression is mostly apathy; later there is an amentia, with loss of memory, confusion, hallucinations and paraesthesias, from which there arise morbid impulses and delusions. Following, there develops a true dementia, and at least in some cases there is an increased pressure of the spinal fluid and an oedema of the brain. In the acute cases of the so-called typhoid type there is usually fever and delirium with hallucinations of sight and hearing. This is ascribed to a toxic state which is often secondary to some known infection. In the majority there is some anaemia with general asthenia. There is also some degeneration of the spinal cord, especially in the posterior and lateral columns, and to a lesser extent the anterior columns. This causes some uncertainty of gait, a spasticity of the muscles, and various paraesthesias, and there is a hyperactivity of the deep reflexes. There is no specific treatment. Personal hygiene and a diet rich in vitamins, especially vitamin B, with plenty of rest and sleep, are the essentials. Moderate doses of some of the arsenicals are helpful. In some cases where there is marked confusion and agitation it has been found that a spinal puncture with a removal of 15 to 30 cubic centimetres of fluid has given some relief for a time, but this should be considered as a measure that is still in the experimental stage.

C. S. R.


Physiological processes concerned with nutrition bear a distinct relationship to the emotional state of the individual and are modifiable by emotional changes. The earliest situation is dependent upon an emotional relationship between mother and child. Disturbances here may lead to immediate difficulty in providing proper nutriment for the child. Properly utilized, however, this situation offers a powerful means for the establishment of routine and the formation of habits that may simplify the question of feeding. Exaggeration of this situation may lead to the development on the part of the child of behaviour designed to prolong the infantile state of dependence. In children who present feeding problems, if we rule out all cases in which there is disease, or organic or functional incapacity of some sort, there is still a residue of cases with unexplained symptoms. In these, neurotic manifestations may be recognised, and here the emotional element is of primary importance. The child may be utilising a neurotic device to attain an understandable end or the mother may induce the difficulties by anxieties and fears; more frequently the situation is a rather subtle one in which there is much emotional interplay between the various members of the family who ordinarily have close contact.
with the child. Such emotional-nutritional situations may be prevented, but considerable insight on the part of the mother is required. Temporarily, complete separation of the child from the family group may be necessary and is usually quickly effective in developing in the child more useful modes of behaviour.

C. S. R.

PROGNOSIS AND TREATMENT.


The author records a case which was diagnosed clinically and serologically as general paralysis. There was no evidence of previous cutaneous lesion. The woman was treated with malaria, but had no further antispecific treatment after this. Five months later she developed typical nodulo-ulcerative syphilides on the right buttock and left thigh.

He points out that it has been generally held that neurosyphilides are evidence of an allergic condition of the tissues and indicate partial immunity. Cases which show them run a benign course if they develop neurosyphilides later. He suggests that the appearance of a syphilide in his case, five months after malaria treatment, points to the conclusion that malaria treatment helps to re-establish an immunity in which the skin takes an important part. The gradual improvement in the spinal fluid also supports the conception that malaria produces a tissue reaction rather than a direct spirochaeticidal effect.

P. W.


In the course of experimental work, it was decided to try the effect of two short courses of malaria, stopping the attacks by quinine in doses of 30 gr. daily as soon as the first rigor as was convenient.

The advantages claimed for this method of treatment are (1) reduction of mortality and of suffering for the patient; (2) mental and bodily re-education can be begun a few days after the first attack; (3) antisyphilitic treatment by tryparsamide or salvarsan can be combined with the malarial treatment more readily; (4) great reduction in anxiety and labour for the physician and nursing staff; (5) the treatment is placed within the reach of the general practitioner since shielded nursing in hospital is no longer necessary.

C. S. R.


Of 100 paralytic patients, treated with malaria, 25 were able to leave the hospital. Twelve patients improved to such a degree that they can be trusted