and demands active support, the other is tentative and demands discussion.

The therapeutic side should be strictly supervised by experts. The preventive side can properly be discussed by anyone who cares to argue.

The weakness of the attitude of some mental hygienists, notably of the extremists among Freudians and mental testers, lies in a perfectly illogical demand for active support based on uncritical acceptance of disputed theories.

The duty of physicians seems to me plain. Mental hygiene is no revelation, it is open to intelligent criticism. Too many laymen regard it as a new faith. As physicians we should watch sympathetically, but critically, and we should guard against the well recognized dangers of enthusiastic and misguided lay application of medical methods.

Fortunately the National Committee has furnished, in accessible form, the literature which needs to be consulted. The examination of this evidence is interesting, profitable and easy. That some of it arouses discussion is inevitable. The National Committee, as a whole, should welcome professional interest. If doctors do not show interest it will be their own fault if they find that charlatans and unscrupulous enthusiasts are capitalizing the interest which the National Committee has aroused.

ILLUSTRATIONS OF DIFFERENTIAL DIAGNOSIS OF SOME TORPID STATES: THE THERAPEUTIC IMPORT.

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THE obtuseness of consciousness is one of the earliest and most alarming phenomena which attracted the attention of students of disease. This is not the place for historical survey of the views regarding consciousness or its loss. For this presentation is to be confined to some aspects of differential diagnosis of some of the causes of impairment of consciousness. It is merely a survey of a few cases the superficial resemblance of which made the differential diagnosis all the more important.

CASE 1.—The first patient was a man of 22, seen at Spartanburg, with Dr. Fike. Three weeks previously there had suddenly occurred a feeling of stress in the eyes as if congested, and this was followed by an excited delirium. From this he had passed into a state of torpor. When I saw him this was less evident, but there was still some clouding of consciousness and slowing of responses and movement, and inability to understand unless remarks were quite simple.

However, physical examination showed absence of left achilles reflex, diminution of the right adductor reflex, a weakness of right internal rectus, an impaired diadochokinesis, slight

jerky tremor in movement, a dull facies, and wide and sluggish pupils. These signs, in conjunction with the rapid onset, the delirium, and the torpidity, pointed to encephalitis as the possible diagnosis. This opinion was confirmed by the further progress of the case, the patient markedly improving.

This case must be contrasted with the young man now presented.

CASE 2.—Here one notes the bent attitude, stooped shoulders, with the head poked forward with a set and staring look, the shortness of the steps in walking, the lack of briskness of movement. Palpation discovers a rigidity of the limbs, trunk, and neck, and the patient complains of pain of the muscles above the shoulder. This state is the sequel of an encephalitis which had been diagnosed as influenza some two years ago, in spite of the extreme lassitude and torpidity of the patient during the attack.

A number of cases of this kind are now being seen by neurologists. In some of them tremor is a marked feature. They present the syndrome produced by lesions in the region of the corpus striatum. Some physiologists believe that in this region the injury falls upon a system which governs the muscle tone, lesions of which produce both rigidity and tremor without preventing voluntary movement, which, however, becomes impaired on account of excess of muscular tension.

The resemblance of this syndrome to Parkinson's disease is very striking. The differential diagnosis is made by the onset of the former occurring after an acute illness, encephalitis, and by its comparatively rapid onset within a few months, while Parkinson's disease comes on insidiously during a period of years. Also, it is very rare except during the decline of life, whereas postencephalitic dystonia may occur before the prime of life, as in this case.

Much misconception has occurred from the use of the name "lethargic," as torpidity is by no means constant in encephalitis. Restlessness, on the contrary, almost always occurs, although it may not show itself for months. Wakefulness may be the predominant symptom and may last for months. Oculomotor paralysis may be absent even though the disease is a diffuse one. The frequency of its occurrence is due to the concentration of the oculomotor cells in nuclei and to the delicacy of their functions, the impairment of which is easily detected. On the contrary, a lesion of equal severity in the centrum ovale may show no focal signs. In some cases the functions are well performed until months after the development of the disease, when a Parkinsonian syndrome may appear, as in the foregoing case.

In the extremely torpid cases, catalepsy may occur, and in that case there may be a temptation to diagnose catatonic dementia precox. Careful neurological study should prevent this error, which the future course of the case will, however, rectify.

One has to differentiate encephalitis from such a case as the following:

CASE 3.—A man of 44 was seen with Dr. Steedly, also at Spartanburg. Four months before he had had an apoplectic attack, blood pressure 198, followed by torpor, headache in the left temple, aphasia, and weakness of the right side. In hospital the blood pressure fell to 140, and he improved, but relapsed three months later, with periods of semiconsciousness. Examination showed an extensor response of the right plantar reflex, absent right abdominal, diminished cremasterics, a weak grip of the right hand, diadochokinesis impaired on both sides, perseveration of movement, possibly some apraxia, substitutory aphasia and poor comprehension, though automatic speech was better than responsive speech, and neither showed dysarthria. The Wassermann reaction was negative and the spinal fluid contained 10 cells per cubic millimeter. There had been strabismus, and there was slight diplopia, but not hemianopsia. The visual fields were not examined at the time. Nothing abnormal could be seen in the optic disks and there was no pupillary deficiency. There was slight facial asymmetry. The most significant feature of the case was that on sitting up there occurred excruciating pain in the left temple, dizziness, and an aggravation of the speech defect. The man, in every way, except in his nervous system, was in the best of health, with a blood pressure never exceeding 140.

In so powerful a man, free of renal disease and hypertension, one had to reject the earlier diagnosis of apoplexy. The severity of the relapse and the lateralization of the physical signs were against a diagnosis of encephalitis in spite of the suddenness of the attack. On account of the one-sidedness of the signs, and their severity, the aphasia, the hemiplegia, the perseveration, and, above all, the localization of a headache, though aggravated by change of posture, the diagnosis made was a neoplasm of the left frontal lobe.

CASE 4.—Another variety of torpidity is exemplified in a woman of 45, seen near Rutherfordton, N. C., because of a coma with delirium which had occurred two weeks after a febrile attack with pain in the chest. She had lost appetite for a considerable time and had been severely constipated and had emaciated greatly. Examination found equal reflexes, reacting pupils, normal sensibility, dragging movements, and a lucid though very sluggish mind. The skin was rough and dry, and there was a bran-like eruption on the back of the wrists; the tongue was scarcely red, but on inquiry the family doctor said he had remarked its extreme redness two weeks before. Inquiry showed that there had been a great lack of variety in her food for the preceding six months; it consisting almost entirely of grits and molasses, as she did not care for meat, and green vegetables were almost unobtainable. The absence of neurological signs in a case of acute onset, and the quality of the torpidity, quite unlike that seen in encephalitis, caused a rejection of that diagnosis, while the red tongue, the rapid emaciation, the eruption on the wrists and the history of dietary deficiency led to the diagnosis of pellagra, in spite of the absence of diarrhea.

OBTUSION FROM TOXICOSIS.

CASE 5.—*Post-Influenzal Confusion with Exhaustion.*—In May, 1915, a judge, aged 64, after a severe attack of influenza, remained very weak, confused in mind, and began to develop hallucinations and delusions of a vague character. Several consultants were seen without result, and he became weaker and less clear mentally. The patient was in a typical condition of mental confusion. Deep reflexes were

very faint, abdominal reflexes were absent, there was plantar flexion. There was no paralysis and no anesthesia, so far as could be ascertained. The optic disk was not edematous and showed no arteriosclerosis, but the superficial vessels had thickened coats, though the heart was small, the apex reaching only to the lower border of the fourth rib, one inch inside the nipple line. Systolic blood pressure was 102, the diastolic 60. The kidney function had been ascertained by Dr. A. Hooe to be normal, phthalein appearing in ten minutes, to the amount of 30 per cent. and 34 per cent. in the first and second hour, respectively. But there was a large quantity of indican and a slight trace of albumin.

The patient was taking the following diet and medication: 2 A. M., beef juice; 3.20, ammonia; 4, red solution potassium iodide; 5.30, grapefruit juice; 6.15, three tablets, egg, whiskey, milk; 7.30, ten drops adrenalin solution; 8, ten drops solution iodide of potassium; 10.20, soft toast, coffee; 11.15, three tablets—caffeine, strychnine, spartein; 12, ten drops B. P.; 12.30, ten drops solution; 1.30, beef tea; 2.30, ammonia; 3.30, three tablets; 4, custard, cream; 4.30, ten drops B. P.; 4.45, ammonia; 5, ten drops solution; 7, egg, whiskey, milk.

I consider this a case of acute exhaustion psychosis, partly toxic in character. The treatment prescribed was embodied in the following report to his physician:

As the patient is suffering from exhaustion, stimulants are contraindicated as the tired organ is incapable of further response to them; therefore, I think it wise to omit caffeine, the secondary effects of which increase the exhaustion.

Strychnine should not be further given either; for it merely increases the discharge that is the exhaustion of energy of medullary neurones.

Spartein is a nerve-muscle poison, the effect of which in improving cardiac activity cannot be maintained for long without greater nutritional capacity by this patient.

It is true that an occasional case of paresis very rarely has as low a lymphocytosis; but never during an acute attack of the period simulated by this patient.

I see no advantage in the iodide of potassium. Furthermore, the basic element of this is a strong cardiac depressant. Nor should I give the bromides during the effort to build up the patient, as they diminish metabolic processes and diminish resistance. Ammonia should be kept for emergencies only, as its effect is evanescent.

The régime I prescribe is as follows: 6 A.M., five grains of sodium bicarbonate in four ounces of hot water; 6.15, one orange; 6.30 breakfast, cereal and milk, one egg, crisp bacon; 8.30, massage, consisting of slow, deep pressure without friction; the purpose of this is to increase the *vis a tergo* of the circulation and thus aid the heart by saving its *vis a fronte*. Sleep if possible.

On waking, about 9.30, five grains sodium bicarbonate in four ounces of water; 10 to 10.30, lunch—one banana, cereal, and milk; 12 to 12.30, massage, sleep; 2 to 2.30, dinner, meat and potatoes, green vegetables; 4.30, massage, followed

by five grains sodium bicarbonate in four ounces water; 6.30, supper—unpolished rice and milk, one banana. Between that and midnight, massage again when the patient is awake. For midnight lunch, Graham crackers and milk are desirable. The quantity of milk at one meal should not exceed five ounces. After meals the patient should be given one capsule of "phytin," an organic phosphorus preparation of the Society of Chemical Industry of Basle.

Beef-tea and gelatin should be omitted as containing too much excrementitious materials, which are cardiac poisons. Coffee and tea should be omitted also. A small piece of bread, with or without butter, may be taken with each meal if desired. Water should be the drink, and should be given about one hour before each meal, but should not be restricted to that time if the patient desires it at any other.

The adrenal principle should be continued; and I think it is better given as the dried gland, say three tablets a day to start with. I think that its effect might be improved by being taken along with 1 tabloid of "hormotone."

If this diet is found to be too heavy, diminish the quantities at the commencement. If the patient suffers from the heat, cool sponging should be beneficial; and in any case its effect upon the innervation of the vascular system is usually most beneficial; the water should be used lukewarm. The best cereals to give are puffed grains, with an occasional change to oatmeal and the brown prepared wheats, such as Ralston's. If the patient should desire any one article of food, let him have it occasionally.

When these measures were carried out, improvement was rapid; so that in four weeks the patient was able to be about, and the following term took his place on the bench, and remains well at this time, seven years later.

CASE 6.—Marked Confusion Due to Metabolic Mixture Resembling Petit Mal.—A bacteriologist, aged thirty, was referred to the writer in the spring of 1912, because of attacks he called "bilious" (but not preceded or accompanied by constipation), which produced headache, preceded by numbness and pricking in the fingers, followed by dizziness, mental confusion, and foolish talk of paraphasic type, without loss of consciousness. These attacks had occurred every two or three months since the age of twenty-two; they were of short duration; there were no scotomata, but they were formerly accompanied by vomiting. The headache was of the splitting kind, lasted all day, and was followed by dullness and slowness of thought the day following. The capacity to concentrate his thoughts was increasingly impaired even between the attacks. He was at times irritable. He had no bad habits, and apart from these attacks he was well and strong. He received a blow on the side of the head when a boy, and there was still a dent in the left parietal region, upon which side the headache most often occurred. He had a large appetite, which he said he controlled, but he ate meat thrice a day, although, he said, sparingly. The blood pressure was not raised, and reflexes and sensibility were normal.

Treatment and Progress.—He was given the "low-protein standard" diet. He wrote me the following winter: "Since I have reduced the amount of protein in my diet and increased the quantity of

vegetables, I have had no recurrence of these spells." His physician informed me that he remained well over three years later.

ENDOCRINE TYPES OF TORPIDITY.

CASE 7.—Hypoadrenia.—Some years ago a mechanic of 48 was seen with Dr. W. Carr, Jr. He was quite unable to work, because of extreme depression, slowness of thinking, and finally a state of torpidity from which he could scarcely arouse himself. Examination showed loss of weight, sluggishness of reflexes, slowness of movement, and difficulty of cerebration, along with a very sad feeling tone. The pulse was slow, and the blood pressure below 90. The clinical picture was typical of hypoadrenia, and the diagnosis was confirmed by recovery within a week by attention to general hygiene and the giving of adrenal substance.

CASE 8.—Pre-Adolescent Hypopituitarism.—A girl, aged eleven years, was brought by her mother, a doctor's wife, because of loss of interest in her lessons, of which she had previously been very fond; grimacing of the face in spite of all correction; equivocation and fibbing in attempts to evade her duties; and greediness amounting to gluttony. She had always been a stout child, but had become enormously so during the preceding year or two. Exploration of a possible psychological cause for this change of behavior was fruitless; so psychomotor exercises were begun for the facial tics. The only effect of these was to arouse the patient's resentment, and they were not continued. Some time after, great somnolence manifested itself, the child becoming very lethargic and even dropping off to sleep in the middle of a task or at the table for a few minutes. This directed attention to the function of the pituitary gland; so this was immediately explored by the levulose test. As this showed great increase of the tolerance of the system to large amounts of sugar, 300 grammes, it was decided that the pituitary gland was functioning insufficiently; great increase of weight, torpor, psychic inadequacy, and its attendant changes in behavior being symptoms of lack of pituitary secretion. Feeding with increasing doses of pituitary gland was at once begun.

The child recovered completely in a few months, and after the onset of puberty was able to dispense with the pituitary gland, and now 10 years later, is active and comparatively thin.

CASE 9.—Hypothyroid Torpor.—A case mentally even more sluggish was seen in a woman of 50, but in contrast to the preceding example she had gained 30 lbs. in weight in the course of a few months, the voice had become coarse and rough, there had been progressive and constant loss of hair, the eyebrows had become scanty, the urine less abundant, and she showed the characteristic thickening at the base of the neck, low temperature, slow pulse, and rough skin of hypothyroidism—a diagnosis confirmed by her rapid recovery when thyroid substance was given her by the mouth.

PSYCHOGENETIC OBTUSION.

The torpid state has been observed as a reaction to an over-difficult situation. Thus one of my friends, an eminent inventor, who keeps up a private laboratory for his amusement, finds that whenever he fails to solve a problem upon which he has been working for some hours he is not only disappointed but has an irresistible inclination to sleep, which he indulges, although it can be overcome with a powerful stimulus.

Again, a young lad of my acquaintance when faced with something which he finds unpleasant

feels himself overcome with a species of lassitude and complains of being very tired. This state is very easily dissipated by either changing the mental attitude toward his task, or by permitting him to do something else. In some instances, however, lassitude will persist for a considerable time.

THERAPEUTIC IMPORT.

Although curious and interesting, relation of these cases would have little practical import for healing of the sick did differential diagnosis not provide an avenue to treatment of each case leading to improvement and recovery. Thus, the case of acute encephalitis was spared the risks of exploratory craniotomy, avoided an unnecessary saturation with antiluetics, and he was spared the expense of a rich diet.

The patient with post-encephalitic dystonia is saved from wasting his money upon useless manipulations whether they call themselves chiropractic or not, and is spared the annoyance and expense of being baked in a vain hope of relaxing his over-tight muscles.

The patient with a tumor of the frontal lobe is relieved by an operation upon the skull; he, too, is spared the infliction of mercury and arsenicals.

The woman with pellagra escapes the mad-house, useless medication, futile exploratory operation, and is quickly restored by appropriate diet.

The young girl with pituitary disease is spared the stigma of a perverse character, the trying discipline of psychomotor reëducation, and the murdering of the digestive organs by so-called tonics. She was soon restored to effective living by proper opotherapy.

The man who at first sight seems a wreck of his former self is spared the all too commonly imposed trip to Florida, a long stay in a sanatorium, or a life of permanent invalidism. He, too, is quickly restored to effectiveness by proper opotherapy.

The woman who has become a burden to her household, and whose illness is compelling her family to face an entire readjustment of their lives, is restored to her former effectiveness as director of her household and companion of her husband and children, but only after the nature of her trouble is ascertained to be due to a mere deficiency of thyroid secretions.

Of the torpid conditions ensuing upon psychic causes, of which an example would take too long to relate completely enough, the therapeutic import of a correct diagnosis is just as great; for it is especially to these patients that have been misdirected so often medicinal and physical measures without efficacy in such cases. Strychnine, forced feeding, rest, change of scene, douches, massage, treatment by cults—all fail to reach the source of the disturbance. The inertia of cases of this kind can be quickly and infallibly removed, by proper psychic means, and by them only. For if other means, in some few cases,

seem efficacious, it is only because of the psychic accompaniments which some of them sometimes contain, and which may accidentally happen to fit the particular case; whereas intelligent psychotherapy ascertains and measures the situation and then meets it with a sure hand.

Most gratifying of all, the distress and ineffectiveness due to psychic disadaptations are permanently relieved by the rectification of the patient's mental attitude and accompanying emotion, with a success nearly invariable where proper means are used.

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CONGENITAL MALFORMATION OF THE INTESTINE — ATRESIA AND IMPERFORATE ANUS.

A REPORT OF TWENTY-SEVEN CASES.

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Congenital malformation of the intestine, although not by any means a common defect, is of sufficient importance to warrant the attention not only of the practising physician, but of the laity as well.

Recently while assisting Dr. Wolbach in autopsies at the Children's Hospital, Boston, two cases of malformation of the intestine were encountered in a single week. The similarity of sex, nature of defect and operation, and the fact that both died on the fourth day, led to my studies of this particular form of defect; with the result, I was able to collect twenty-five unpublished cases from the Warren Anatomical Museum of the Harvard Medical School.

In view of the fact that text books on diseases of children, obstetrics, and systems of surgery mention the condition from their respective points of interest, it is the object of the writer not merely to place these cases on record, but to include in this study such available information, other than those that are obvious at birth, that may be of interest on the subject.

I am indebted to Dr. Stone of the Surgical Service of the Children's Hospital for the clinical data on the first four cases; and to the Warren Anatomical Museum for allowing me to use the specimens and records; also to Dr. Wolbach for the assistance he gave me in the preparation of these cases.

REPORT OF CASES.

CASE 1.—A-21-19.

Clinical Data: Baby L., male, age 2 days, was admitted to the Children's Hospital, Boston, with imperforate anus. Although no meconium was passed by urethra, the symptoms were not