even hypnotism in special cases, might be tried to advantage at this time; but this must be done with system and persistence, and with the co-operation of the patient, which, of course, is often lacking.

Finally, I think we might do some good by choosing a better nomenclature, and agreeing on better explanations for these nervous states than those which are now current.

It is important that the lawyers and, if possible, the public, should get to understand, so far as they are able to do so, the real nature of these diseases; and we ought at least to be able to get rid of the bugbear of "organic or functional" disease, for that is a point about which we should probably be in agreement, or, at least, our differences would be as to the definition of the terms.

THE NATURE OF NEURASTHENIA AND ITS RELATION TO MORBID FEARS AND IMPERATIVE IDEAS.¹

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IN spite of the number of neurasthenic patients seen in hospital clinics and in private practice, and in spite of the treatises on neurasthenia and the studies of the morbid conditions presented by neurasthenic patients, it must be admitted that the term neurasthenia is only too often applied to wholly different affections and that there is still much confusion as to the true nature of the trouble. Few, of course, hold with Arndt that it is practically identical with the neuropathic constitution, and that it may develop into hysteria, melancholia, epilepsy, and even tabes or general paralysis; but many still include under neurasthenia hypochondriacal conditions and morbid mental states.

Besides including many diverse affections under the one heading of neurasthenia, considerable confusion has prevailed as to the nature of the affection. We still hear of spinal irritation and nervous dyspepsia, and many still seek for the source of neurasthenic symptoms in the pelvis, the eye or the nose. Gastric atony and various forms of auto-intoxication have been given undue prominence. With the renewed interest in psychical phenomena there has of late been a tendency to lay much stress upon the part which imperative conceptions play in the genesis and development of the neurasthenic trouble, and to regard neurasthenia as a disease dependent upon morbid ideation.

In order to determine the true nature of neurasthenia it is necessary to study the simpler cases, especially in patients of the hospital class, whose mental processes are less complex, and whose tendencies to morbid imaginings are reduced to the minimum. Such patients have to work as long as their strength will permit, they have to disregard the minor symptoms of their ailments and the morbid ideas which may arise in their minds. They lack the mental development which leads to introspection, speculation and doubt, and thus they afford better opportunities for studying the simpler primary manifestations of neurasthenia.

A study of the symptoms in one hundred consecutive cases of neurasthenia seen in hospital practice and fifty cases seen in private practice may enable

us to determine the chief symptoms of the trouble. The most constant complaint was of nervousness and weakness,—the two conditions generally recognized as the essential symptoms of neurasthenia, and as manifesting the familiar condition of "irritable weakness." The patient is soon exhausted after slight effort, and he has lost the capacity for persistent mental or physical effort on the one hand, and, on the other hand, he is much sooner disturbed and irritated by the petty annoyances of life. This condition is so familiar, and it has so often been described that it is needless to dwell on it. It must, however, be borne in mind as the essential feature in neurasthenia. Next in frequency to these two symptoms came headache, or, much less frequently, unpleasant sensations in the head, such as burning, pressure, or, very rarely, the band-like pressure of Charcot's neurasthenic helmet (*casque neurasthénique*).

Headache, or unpleasant cephalic sensations, were noted in eighty-one hospital and thirty-six private cases. Next in frequency was indigestion, noted in sixty-seven hospital and thirty private cases; disturbances of sleep were found in fifty-nine hospital and thirty-two private cases, and palpitation and other circulatory disturbances in sixty-six hospital and twenty-one private cases. Depression was noted in rather more than half the private cases, twenty-seven, but in only twenty-seven of the hospital cases. Backache and other symptoms were much less common, and were noted in less than half the cases.

These symptoms have a most striking analogy with those observed in conditions of extreme fatigue. In ordinary fatigue there is the desire for rest, food and drink and disinclination for further effort, although effort may be made under extraordinary stimuli. If the effort be pushed, as a result of extraordinary stimuli, beyond the limits of the person's strength, there follows a condition of restlessness, still greater inability for further effort, which can be overcome only by very much greater stimuli, nervousness, irritability, inability to sleep or eat, headache, indigestion and mental depression. The conclusion seems almost inevitable that neurasthenia is closely akin to chronic and extreme fatigue.

The precise pathology of fatigue is still uncertain, but it seems probable that the cells in the cortex, representing the higher volitional centres, are the first to be affected. Whether the fatigue be due primarily to changes in the cell from excessive functional activity, or whether the changes in the cell are secondary to poisoning by the toxins produced as a product of functional activity, is still uncertain.² Daily experience, however, shows that actions demanding the constant performance of voluntary and unfamiliar movements, demanding persistent attention, lead to fatigue much sooner than actions which are familiar and which can be regulated by the lower centres; copying English, for example, is easier than copying Italian, and the latter is vastly easier than copying Arabic; walking at will is much easier than walking along a definite mark.

It is not, however, my purpose to dwell on the pathology of neurasthenia—still a field for speculation—or to discuss the various theories of intoxication which are often advanced. I have elsewhere³ expressed doubts as to the reflex origin of the trouble,

¹ Read before the American Neurological Association, June 5, 1896.

² De Fleury: *Revue de Médecine*, February, 1896.

³ *American Journal of the Medical Sciences*, October, 1895.

and the absence of any digestive symptoms in a respectable minority of the cases would raise a question as to whether gastric atony or other digestive disturbances were very important factors. My present purpose is to inquire how far morbid ideation is a factor in the symptomatology of neurasthenia, and whether we should include such morbid mental symptoms among the symptoms of the disease.

The commonest mental symptom in neurasthenic patients is simple depression, which existed in twenty-seven cases to a degree sufficient to warrant complaint. In patients in private practice it seems somewhat commoner, twenty-seven out of fifty patients complaining of it.

This depression is nothing more than natural. In many cases the neurasthenia is due, in part at least, to grief and worry. The suffering consequent upon the disease, the deprivations and losses that may be due to it, and the uncertainty as to the future, are all depressing factors, and the mental state thus produced is merely the physiological result. I have cited only the cases where the depression was a somewhat marked symptom of this disease. If all cases of slight and temporary depression were included the symptom would be much more common, for few neurasthenics are persistently cheerful. In some cases the depression passes beyond the physiological bounds, and the case is to be regarded as true melancholia. The line of division is by no means a sharp one, and it is sometimes difficult to decide just which term to apply to the affection. In ordinary neurasthenic conditions, however, depression is a secondary phenomenon; it is either the physiological condition naturally due to the grief or worry which produces the neurasthenia, or, when neurasthenia is not due to such a cause, it is the natural result of the weakness and suffering.

Occasionally the depression gives rise to ideas of suicide, often in the shape of a suicidal impulse at the sight of poisons, deadly weapons, etc. These impulses are fully described by the patient, who is apt to be greatly alarmed by them. The true melancholy patient, on the contrary, rarely mentions, and never obtrudes his suicidal ideas. Such vague suicidal impulses are, however, very common in ordinary mental health; most persons, probably, have had the impulse, readily resisted, to jump from a height, jump in front of a locomotive, drink from a bottle of poison, or shoot themselves with a pistol which lies at hand.

Setting aside simple depression, which is rather a physiological consequence than a cause of the neurasthenic state, the chief mental manifestations observed in neurasthenia may be classed under the headings of imperative ideas or obsessions and morbid fears. These conditions, however, are rare in hospital patients, being noted only in twelve out of one hundred patients, seven times in the form of morbid fears, and five times in the form of imperative ideas. These include even the slightest forms of morbid ideation and slight fears, so that, in order to discuss the various fears and imperative ideas fully, we must turn to the more complex cases met with in private practice, where, in fifty cases, such ideas were noted in twenty: fifteen times in the form of fears, six times in the form of imperative ideas.

In his treatise on neurasthenia, Beard dwelt at length upon the various morbid fears, or phobias, the list of which is limited only by the limits of the Greek dictionary, and since Beard's day most of the writers on

neurasthenia have regarded the phobias as comparatively important symptoms of the disease. They merit, however, considerable analysis before they can be so regarded.

There is one large class of fears which have direct reference to the personal welfare of the patient. Ignorant of the real significance of his symptoms or the true nature of his trouble, he fears that he has some serious disease; if there be cardiac symptoms he fears valvular disease and impending death; or if there be marked nervousness or depression he fears insanity. Such fears are perfectly natural and sometimes not unreasonable. They are often based upon actual symptoms which may be misunderstood or misinterpreted. It is not at all strange that the average man, conscious of certain ill-feelings, and ignorant of medicine, should be affected by the quick advertisements which constantly meet his eye and teach him that these ill-feelings are the forerunners of some fatal disease. His fears are perfectly rational, only they may rest upon false premises. Such is the explanation of six out of the seven cases of morbid fears in these hundred cases, and nine out of the fifteen cases in private practice. The fear, like the depression, is a secondary phenomenon, based upon a false, or, sometimes, upon a correct interpretation of the symptoms of the disease. It is relieved when competent authority explains to the patient that he has been reasoning upon false premises, that his heart, his kidneys, his lungs, or his brain, is perfectly sound. In the severer forms of neurasthenia, where the chronic character of the trouble and the failure of various forms of treatment have led to despondency and hopelessness, these fears may persist in spite of reassurance, but their genesis is the same; they are the results, and comparatively infrequent results of neurasthenia, instead of being causes.

In some cases the morbid fear is based only in small part upon actual symptoms of disease. There is, in addition, a marked perversion of the ordinary mental processes. The patient imagines all sorts of symptoms, he misinterprets those which actually exist, and he constructs in his own mind a definite systematized series of delusions. In advanced cases the patient persists in his beliefs in regard to his sufferings and his symptoms in spite of actual demonstration to the contrary. The process is more intellectual than affective; such patients, in spite of the most pronounced belief in the intensity of their sufferings, often can be diverted, whereas a melancholy patient, with equally vivid ideas, can regard only himself. These cases, therefore, are of a delusional type, and in the extreme forms they are much more closely akin to paranoia than to melancholia. We must distinguish carefully between such cases, when the whole mental process is perverted, and those of the former class, where there is simply the natural fear as to the future welfare, based upon a misunderstanding of certain symptoms. The former cases alone are to be classed as true hypochondriasis, and bearing the above distinction in mind, they must be regarded as indicating serious mental perversion, and they should be sharply differentiated from neurasthenia.

The second class of morbid fears are the phobias proper, with all their portentous Greek affixes. These fears arise only when the patient is exposed to certain causal conditions, an open space or a closed space, a high place, lightning, and the like. Exposure to these conditions may give rise to fear, and to certain conditions of anxiety and distress, such as palpitation,

cardiac distress, nausea, diarrhea, sweating, pallor, tremor, a rapid respiration, vertigo, or faintness. Such fears, noted to a greater or less degree in six out of fifty private patients, were not observed in any of the hospital cases.

These morbid fears, however, are not uncommon. They are seldom rational, that is, the fear is seldom due to any actual danger. We may instance the familiar feminine fear of a mouse, or the almost universal dread of snakes, no matter of what variety. I have known the near approach of a cockroach or a June beetle to give rise to agitation, quickened pulse and breathing, slight cardiac distress like a feeling of constraint or oppression, and much anxious dread in a perfectly healthy man, who recognized intellectually that the creature was perfectly harmless. This dread of insects was so great that there was almost equal repugnance to the presence of a dead one, repugnance so great as to render touching the dead body of a spider or June beetle an almost impossible task. Another man, a vigorous and noted scientific man, expressed almost equal repugnance to the large green tomato worm. Various cases are on record where even more severe symptoms were excited by the presence of a cat. A woman who has always had a morbid dread of going upon the water, told me that the symptom was first noted by her parents in very early childhood, when a simple row upon a small pond gave rise to very great disturbance. I have noted similar states of anxiety from thunder-storms.

The dread of high places is a very common form of morbid fear, to which many persons in apparently perfect health are subject. It may be present in childhood, but it is more apt to develop as the child grows older and comes to have a realizing sense of the true peril that may exist in a high place. Exposure on a high place may give rise to the conditions of anxiety just described, — a quickened pulse, cardiac distress, a "gone" feeling in the abdomen, rapid respiration, pallor, tremor, vertigo, nausea, or even diarrhea. The dread of high places is apt to grow stronger when a person is fatigued or debilitated. It is, of course, more pronounced when a person is on an unprotected high place. I have known the Torre del Municipio in Verona whose top is wholly unprotected, cause severe symptoms in a person who was quite unaffected on the Eiffel tower, where a closed bulwark comes up breast high, and it is impossible to look directly downwards. The dread, however, is often present in a most unpleasant degree, where the person recognizes intellectually that there is no danger; it may even occur when standing by the closed window of an upper room in some tall building. In one case, in a man subject to this dread, it attacked him when in an upper room in a high New York hotel, but only during the transition period between sleep and waking. Goethe, who was a victim of this dread of high places, succeeded in curing himself by deliberately exposing himself on the tower of Strasburg cathedral.

In analyzing this dread of high places the feeling seems to be complex. It is not the simple fear of a real possible danger, although that element plays an important part. It seems to be due very largely to a distrust of one's own power to preserve equilibrium upon a dangerous place, and of one's own power to resist the impulse to jump. It arises, therefore, in great part from the feeling that strength will not be sufficient. In conditions of fatigue, debility, and the like, this

feeling of weakness naturally becomes greater, and the morbid fear is worse. In neurasthenic states, as might be expected, all such fears become exaggerated.

Some of these morbid fears, the dread of snakes, of thunder, of high places, have their origin in certain primitive conditions, and are of a protective character; others, such as the dread of insects, of mice, of open spaces, of narrow places, seem to have little rational basis. Some of the fears in each category, such as the fear of high places or the fear of mice, seem to be very general, and not to have any connection with neurasthenia or mental degeneracy. They may occur in men or women of more than average mental attainments, doing their full share of the world's work, and enjoying excellent health. Unless we adopt the somewhat fashionable notion that all men are neurasthenic or degenerate, we cannot class those fears among the symptoms or the causes of neurasthenia or degeneracy. Other morbid fears, notably agoraphobia and claustrophobia, seem to occur chiefly in degenerates.

These morbid fears may, perhaps, be classed, as Meyer has done, under the heading of "intention psychoses," developing only when the patient is placed under certain conditions, and not dependent upon any imperative ideas. Another class of morbid fears are present at all times and are directly dependent upon some imperative idea. The ordinary case of mysophobia is a good example of this. The idea of contamination is constantly present in consciousness and gives rise to the fear. The fear of people is often due to some imperative idea in the same way.

Freud⁴ has recently sought to establish a "neurosis of anxiety" (Angstneurose), characterized by general irritability, anxious expectancy, attacks of anxiety, vertigo, phobias of various sorts, digestive disturbances, and paresthesiæ. Such conditions may occur, usually in debilitated or neurotic people, but the anxiety is usually due to morbid fears. In some cases the fears are multiple, giving rise to general apprehension and dread of future evil, so that the condition of anxiety is more constant and more dominant than when the fear is induced by a single cause. In most cases, however, the fear is the primary element and the anxious condition is due to it.

Freud has included several different conditions under his "neurosis of anxiety": the true morbid fears, the fears arising from imperative ideas, and the questionings and hesitations of true *folie du doute*. The centre of the trouble is not, as he thinks, the general anxiety prevailing consciousness, but the anxiety is secondary to definite and individual fears.

This second class of morbid fears which I have just described has close kinship with the various obsessions which have been considered prominent symptoms in neurasthenia. These obsessions, in various forms of greater or less severity, were noted in five hospital cases and six private cases, and they varied from simple introspection, through the scruples and questionings of the New England conscience in its exaggerated form, to the domination of a single idea. I have elsewhere⁵ analyzed in some detail these obsessions, doubts and morbid speculations, pointed out that they exist in a lesser degree in healthy minds, and shown their kinship, in the pronounced forms of *folie du doute*, with paranoia.

Of the relation of morbid fears and obsessions to

⁴ Freud: *Neurologisches Centralblatt*, January 15, 1895.

⁵ *American Journal of Psychology*, January, 1890.

neurasthenia it may be said that the closest study of certain neurasthenics through a period of years has failed to reveal any such morbid mental conditions, that a considerable number of cases of neurasthenia, both in hospital and private practice, show such conditions in only a small percentage of the cases, that in these cases the morbid mental phenomena seem to be secondary to, or to have no causal relation to the neurasthenic condition, and that cases may present these morbid mental conditions without a sign of neurasthenia. It is true, however, that neurasthenia may rarely develop as a consequence of the worry and agitation occasioned by these morbid states, and it is equally true that neurasthenia, like fatigue or debility, may exaggerate such conditions.

We can differentiate more closely than Freud has done in his "neurosis of anxiety." We can recognize in the first place the fears as to bodily health, which culminate in true hypochondriasis. Next we have the fears arising from definite conditions, such as the fear of high places and agoraphobia, which, in their extreme forms, we may class under the heading of phobopsychosis (*sit venia verbo!*). Next come the morbid fears dependent upon imperative ideas, such as mysophobia, the phobic form of *folie du doute*, and, finally the Grubelsucht, or speculative form of *folie du doute*. Hypochondriasis and *folie du doute* have, as I have said, a certain kinship with paranoia. The phobopsychosis although sometimes indicative of mental degeneracy, rarely develops into more pronounced mental disease.

All these morbid mental conditions are akin to mental processes which are often met with in perfectly healthy people. We all of us have our fears, our hesitations, doubts and speculations. The line between these normal conditions and conditions indicating actual disease is no more definite than the line between ordinary mental depression and melancholia. Only when the morbid idea has so far taken possession of the individual as to render him incapable of performing his wonted duties can we say distinctly that he is mentally diseased.

We must recognize, furthermore, that these morbid mental conditions are independent states. They may exist in neurasthenic patients, but they form no part of neurasthenia, and, when we meet them we must recognize that we are dealing with an independent affection.

TUMOR ATTACHED TO THE CEREBELLAR PEDUNCLES AND OVERLYING THE FOURTH VENTRICLE.

BY ROBERT T. EDES, M.D.

Mrs. —, age thirty-seven, mother of four children, when four years old had a severe blow on the back of the head, and was affected with weakness and severe occipital headaches for many months.

Eight years ago she began to have headaches, from one to three a week.

Six years ago she had a severe blow on the head from a carriage accident.

Three years ago her mother noticed that from being rather a quiet person she became more talkative.

Two years ago, and from time to time until her death, attacks of vomiting occurred, and during six months of this time gastralgia, during which the headaches were better.

Taste and smell defective two years ago, and entirely gone for the last six months.

One and a half years ago occurred her first "unconscious spell," but no convulsion.

About, or a little after this time, a diagnosis of probable neurotic vomiting was made.

Her "eyes had troubled her" for three years and a half, but there was no decided failure of vision until some weeks after 1895; double optic neuritis had been discovered in November, and a diagnosis of intracranial tumor, probably of the cerebellum, had been made. There was never any paralysis of cranial nerves.

The vomiting after this time occurred at irregular intervals, often several days in succession, usually succeeding an early morning lunch, and was followed by a good appetite for the regular breakfast, and no further disturbance during the day. Severe occipital headaches frequent, during which she was more likely to put her hand to the left side of her head. Latterly her appetite became enormous and, for a few months shortly before death, there was a slight gain in weight.

The urine was in no respect peculiar.

The intelligence was unimpaired throughout.

There was gradual failure of vision.

The patient up to a late period was able to stand and to walk, but there was some swaying, especially backward.

There were no paralytic symptoms until a few days before death, when it was noticed that the head could not be raised from the right shoulder.

The headaches became more severe and almost continuous, attended with congestion and cyanosis of the face.

She died in May with apoplectic symptoms, stertorous respiration and rapid pulse. There was no history or symptoms pointing to specific or malignant disease.

AUTOPSY.

Thorax and abdomen not examined.

Nothing unusual about calvaria, or membranes, unless, perhaps, marked prominence of the Pacchionian bodies. In the middle fossæ, the brain (that is, apices of temporal lobes) adherent in several small spots, and softened.

The tentorium cerebelli was not specially tense and the cerebellum itself from above presented no appearance or feeling of bulging.

The apex of a tumor was visible between the cerebellum and medulla, slightly to the right of the median line. Upon separating these, it was found to be of a reddish color, not far from the size of the last joint of the thumb (.040 by .017) and attached to the inferior and middle peduncles of the cerebellum upon the right side, and some adhesion to the posterior pyramid upon the left, the lower border being about .017 above the point of the calamus scriptorius. It crossed the median line, although the larger portion was upon the right. It had pushed forward and downward the posterior pyramid of the medulla, so as to press upon the fourth ventricle without itself directly entering that cavity. The medulla below was somewhat thinned, as seen especially in the atrophy of the olivary body upon the right side. The structure of the tumor was very distinctly separated from that of the neighboring cerebellum and medulla, and entirely superficial to them, so that with the exception of a decided compression of the medulla from above downwards, there was no change visible to the naked eye.