

The following points will in the majority of cases be found sufficient to clear up any difficulties which the diagnosis presents:

With regard to the cerebral symptoms, and more especially those belonging to the affections of certain of the cranial nerves, we have in previous chapters pointed out some features characteristic of the hysterical varieties. It will be necessary in every separate case to exclude scrupulously anatomical lesions and to determine whether there are in addition to those belonging to the cranial nerves other symptoms which point to a hysterical condition. If such be found, and more especially if our objective examination gives negative results, the diagnosis of hysteria is warrantable.

These rules are particularly applicable where we have to decide whether a hemiplegia is hysterical or due to a lesion in the internal capsule, whether a contracture has to be regarded as hysterical or cortical (page 184), and whether the disturbances of the respiratory organs depend upon diseases of the lungs or the larynx, or are to be referred to a neurosis of the vagus or of the recurrent laryngeal nerve.

The recognition of the hysterical nature of spinal manifestations belonging to the motor apparatus may give rise to the greatest difficulties. It is upon the electrical examination that we must rely in deciding whether the paralysis of an extremity depends or not upon a peripheral cause—that is, upon a neuritis. A well-marked reaction of degeneration always points to a chronic inflammatory condition. The age of the patient is of some value. Hysterical paralyses occur between the ages of fifteen and thirty, and more particularly in women. Further, we observe almost always associated with hysterical paralyses grave sensory disturbances which are not necessarily present in the other kinds (cf. Lombroso, *Lo Sperimentale*, Firenze, 1887; reference, *Neurol. Centralbl.*, 1888, 7). The existence of muscular atrophy is not sufficient to determine the organic nature of the paralysis because an atrophy of muscles does not exclude hysteria, as we have pointed out above (Brissaud, *Arch. de physiol. norm. et pathol.*, Avril, 1887, p. 339). Schlapobercki (*Inaug.-Dissert.*, Berlin, 1893) has pointed out the significance of relapses in the hysterical paralyses.

Contractures, if of hysterical origin, set in suddenly, and are almost always accompanied by other hysterical manifestations, meteorism, ovarian hyperæsthesia, and ischuria. Where such

symptoms are absent we must be very careful in our examination and take into account the possibility of an anatomical lesion either of central or of peripheral origin (cf. Blocq, *Des Contractures*, Thèse de Paris, 1888; *Progr. méd.*, 1888, xx, p. 397).

Hysterical muscular spasms may be taken for tetany, as the case of Caiger, in the *Lancet* of August 20, 1887, shows. To the frequent occurrence of rhythmical spasm in certain groups of muscles in hysteria, Pitres has drawn attention in an article in the *Gaz. méd. de Paris*, 1888, 13.

Trembling and shaking movements, which somewhat resemble those of intention tremor as they become more marked on voluntary motion, have been noted, but are rare (Charcot, *Progrès méd.*, 1890, 37). The possibility of mistaking such conditions for multiple sclerosis (or *vice versa*) should, however, always be kept in mind. In our account of the latter disease we shall come back again to the points for the differential diagnosis between the two conditions.

The sensory changes in hysteria, the anæsthesias, affect, as we said, not only the skin, but also the deeper tissues, so that needles may be inserted down to the bone without being felt. Usually all qualities of sensation take part in the disorder, so that the so-called muscular sense is also lost and the patients are unable after closing their eyes to give any account of the position of their limbs. Pronounced anæsthesia is found during the hysterical paroxysms. An anæsthesia extending over the whole body and taking in all the mucous membranes is almost always hysterical in nature. These grave sensory disturbances render explicable the possibility that patients sometimes for some reason or another produce sores on their own bodies. With regard to such lesions which may at times be mistaken for those of lupus or carcinoma the reader is referred to the *Deutsche Med.-Ztg.*, 1892, 88 (Account of the session of the Berlin Medical Society, October 26, 1892).

Hyperæsthesias and neuralgias occurring in hysteria are typical in that they are very changeable, so that to-day cranial, to-morrow spinal, nerves are the seat of the pain. Neuralgias of joints, if organic disease can be ruled out and if they are very obstinate and resist all the ordinary therapeutic measures, may be safely looked upon as hysterical. The "attacks" may be mistaken for epileptic fits. The important point to remember in this connection is that in the hysterical attacks con-

sciousness is never lost as completely as in epilepsy. Biting of the tongue is an exception in the former. The hysterical attacks are, moreover, attended with noisy laughing and crying, etc., while epileptics, with the exception of the initial cry (which is not constant), pass through the whole convulsive stage quietly and without uttering a sound. It has been claimed that there never occurs an elevation of temperature during the hysterical seizure, while the epileptic fit is accompanied by a slight rise, 1.2° to 1.8° F. This statement can not easily be controlled, and certainly needs further confirmation. Finally, it should be remembered that hysterical attacks may in some instances be produced by pressure upon the ovaries or the testicles, while in epilepsy this is never the case.

Pathogenesis and Ætiology.—About the nature of hysteria we are absolutely in the dark. Not one of the many attempts to explain the disease can be regarded as more than a vague hypothesis. This one fact may be regarded as certain, that the existence of grave anatomical changes is excluded, or, at any rate, is highly improbable, otherwise the suddenness with which the symptoms come and go would be absolutely inexplicable. The old idea that the uterus must be held responsible in every case and under all circumstances for the disease, which was consequently called hysteria (*ὑστέρα*), has been shown to be untenable by the number of cases observed in men and young children; and the more cases we see, the clearer it becomes that the hysterias occurring in males and in little children furnish a considerable proportion of the total number, and the more ridiculous becomes the term "hysteria," which sooner or later will be given up completely. The influence of the sexual organs on the disease will be discussed later, but we would state emphatically that the opinion that these are always the starting point of the disease is indefensible.

But how shall we explain the disease? If we agree that all symptoms of hysteria have certain characteristics in common, they may perhaps all together be traced to an increased excitability of the whole nervous system, to the quicker response to stimuli from without and within. Just as we have morbid conditions in which the excitability of the nerves and the muscles to the electrical current is found to be increased, we may imagine also an analogous condition in which all the nerves, including the nerve elements of the central organs of the brain,

especially of its cortex, those of the spinal cord, and also of the peripheral nerves, are in a constant state of abnormal or pathological excitability. That in such a state the imagination plays an important rôle is self-evident—not, however, in the sense that all the sufferings of which the patient complains are imaginary and merely depend upon the imagination; we rather mean that, in the condition described, the ideas are consciously or unconsciously influenced by the will, they are formed and disappear more quickly and are constantly changing. Such a quick and unnatural change can not but exert an unfavorable influence, first upon the mind and disposition, and later upon the bodily condition.

In reality it is in the majority of cases a disturbance of the psychical equilibrium which produces the disease. It is not impossible that careful study of the ætiology may do much toward a clearer understanding of the nature of the malady; Guinon has shown this in his excellent monograph, *Les agents provocateurs de l'hystérie*, Paris, 1889. The causes may be subdivided into direct and indirect. To the former belong a hereditary, physical as well as psychical, predisposition of the individual. There is no doubt that only those persons can become hysterical who are from birth so predisposed, because they have a nervous system which presents the peculiarities that we have just described. This congenital, because hereditary, predisposition finds favorable conditions for further development in (*a*) sex, (*b*) age, (*c*) education, (*d*) nationality or race of the patient. That the female sex and those just arriving at the age of puberty are prone to the disease we have said before, although the male sex and other periods of life besides that of puberty are by no means exempt. The hysteria which occurs in early childhood, and which has been observed between five and ten years of age, deserves special study.

Much must be attributed in the causation of hysteria to a faulty education. The brain may be overtasked at the expense of the body, and, in consequence of too little firmness on the part of the parents, capriciousness, inconsiderateness, lack of truthfulness, of energy, and of will power are fostered in the child, and, finally, when the children have behaved badly, the mysterious threats, especially of injudicious servants, of sending after them wild beasts, ghosts, "the black man," etc., can drive them into such a chronic state of fear that they can not go into a dark room without palpitation and the most intense feeling of terror. All such and many other mistakes in

the early education of the child become indirectly causes of hysteria. The occupation may have an influence if it be associated with bodily and mental overexertion, and in certain callings the possibility of intoxication (lead, mercury, bisulphide of carbon, etc., must not be forgotten) (Rouby, Contribution à l'étude de l'hystérie toxique, Thèse de Paris, 1889). As to race the Slavonic (Poles, Russians), the Latin races (the French and the Italians), and, above all, the Semitic peoples, are more liable to hysteria than the Teutonic. The severest forms of hysteria are seen in French women and in Polish Jewesses. This may depend upon the national characteristics; the lively, impetuous temperament which we find on an average more frequently in the Slavs, etc., than in the Teutons, forms a particularly favorable soil for the development of hysteria.

Among the direct causes disorders of the sexual organs play the most important part, and in both sexes this factor is equally potent. We must not think that the affection, which, especially in women, may, from a gynæcological standpoint, be very insignificant—for instance, a flexion, or a change in position of the uterus—has in itself much to do with the matter; it is much rather the idea that the trouble exists, and the anxiety lest it should interfere more or less materially with coitus and parturition, which constitute the direct cause of the depression of spirits. The conjugal obligations—coitus, pregnancy, parturition—play such an important rôle in the life of every woman, if she has not missed her calling, that the mere idea that the sexual organs are diseased or incapable of performing their function is sufficient to give a severe shock to her happiness. In a man it is much less the *potentia generandi* than the *potentia coeundi* that causes him anxiety. The above-mentioned psychological impotence, if it exist for a long time, in itself suffices to bring about a hysterical condition, and sexual neurasthenia is not rarely accompanied by pronounced hysterical manifestations, so that we can well speak of a coexistence of the two diseases.

Secondly, fright ought to be mentioned as a direct cause of hysteria; a girl upon whom an attempt at rape has been made, or a man who has been attacked by a robber, may become the subject of a hysteria, which may last for years, or may even be incurable. It is not necessary in such cases that fright be associated with any trauma, the mental shock sufficing to produce all the symptoms.

If bodily injuries are associated with fright the parts affected frequently become the seat of hysterical disorders. Thus, with a history of a lesion of the hip joint, after the injury has long been recovered from, we may find a hysterical coxalgia, etc.

It is important to recognize the fact that an injury inflicted upon a person who is already suffering from hysteria or who by heredity is predisposed to the disease, may be followed by different consequences than would be the case in a normal individual. Thus a fall on the back which has produced nothing more than a contusion of the soft parts may, in a hysterical individual, lead to a monoplegia or a paraplegia of the lower extremities, while such an accident would have had no such results in a healthy individual. I have seen a number of such cases, to which the term hystero-traumatic affection, rather than traumatic hysteria, would be applicable. In this connection the paper of Miura, Sur trois cas de monoplégie brach. (Arch. de Neurol., 1893, xxv, 75), should be mentioned.

The psychological traumatism may be of such a nature as to have an immediate influence, or may act gradually and insidiously. Among the former we have fright, emotions of anger, rarely of joy; to the latter belong grief, anxiety, wounded self-respect or vanity, and the like.

A special kind of neurosis due to fright has of recent years been much discussed and carefully studied by many investigators, although thus far no unanimous conclusions in regard to its nature have been arrived at. To this condition which thirty years ago was described under the name of commotio medullæ spinalis, or railway spine, the term "traumatic neurosis" is now often applied. Certain investigators claim that the affection is an entity *per se* which, like any other distinct disease, should have its own name; others disagree on this point and regard the old name as sufficient; still others consider both terms to be incorrect, and simply speak of an "accident neurosis."

Whether this affection is to be regarded as a form of hysteria is a question of very little practical importance. It is certain, however, that ætiologically as well as symptomatically the two conditions show much that is alike. The "traumatic neurosis" is produced by the fright alone, the bodily trauma is a non-essential; the latter may be present or not, but the neurosis appears if the psychological shock has been sufficient. Hence we see that ætiologically we have here the same factor that frequently leads to hysteria. So far as the subsequent

manifestations are concerned the results are similar; the subjective symptoms more especially are often of a typically hysterical character, though neurasthenic disturbances are also encountered. Motor and sensory disorders are met with. Among the former may be mentioned a general motor weakness, an abnormal proneness to fatigue, among the latter pain in the head and back, paræsthesias, hyperæsthesias, and anæsthesias. Narrowing of the visual field, diminution in acuteness of vision, photophobia, disorders in color vision or hyperæsthesias of the auditory, olfactory, and gustatory nerves have been observed. Again, we may find cutaneous anæsthesias, situated chiefly on the back, in the shape of irregular plaques, or having the distribution of a well-marked hemianæsthesia hysterica; at other times, again, they may extend over the head, neck and upper chest (doll's head form). In all cases, however, the results of two separate examinations may differ as the anæsthesia may shift its place or vary in extent. The rules for making sensory examinations have been excellently formulated by Goldscheider (*Neurol. Centralbl.*, 1892, 12). The skin and the tendon reflexes vary as they do in hysteria. Urinary symptoms may be present or absent. While walking, and in general in making any motion, the patient avoids all movement of his spinal column. He fixes his trunk and moves with his back held stiff, using his hands as much as possible whenever he wishes to change his position (Oppenheim).

Psychical abnormalities appear chiefly under the form of depression, fear, irritability, hypochondriacal depression, and the like; these symptoms are, however, not always due to the accident, but often result from the trouble and annoyance entailed by the interminable negotiations before the degree of disability and the amount of damages to be paid are settled upon.

It must be remembered that every patient with a so-called traumatic neurosis who has any damages to claim is suspected, if not of simulating, at least of exaggerating his symptoms, and it is certainly well for the physician to be cautious. On the other hand, it would be absolutely wrong to regard all such a patient's complaints simply as exaggerations or lies. We must examine him carefully, and in no case should an expert opinion be given after a single examination (Burchardt, *M. Prakt. Diagnostik der Simulation von Gefühlslähmung, Schwerhörigkeit und Schwachsichtigkeit*, Berlin, Enslin, 1891).

The objective symptoms which are frequently, though not regularly observed, are, of course, valuable for the purpose of excluding simulation. They are: (1) The concentric narrowing of the visual field (especially for red and green) when this is found to be constant on repeated examinations (Schmidt-Rimpler, *Deutsche med. Wochenschr.*, 1892, 24); (2) a peculiar narrowing of the visual field which was first described by Förster in cases of anæsthesia retinae. The value of this symptom has recently been pointed out again by König (*Berliner klin. Wochenschr.*, 1891, 31) and by Placzek (*ibid.*, 1892, 35). "The essential features of this symptom may be thus summarized: Objects moved into the field from the periphery to the centre can be seen farther out than those which are moved in the opposite direction; if the patient fixes the white spot of the perimeter and we now make two examinations, in the one bringing the object in from the periphery and marking the points at which it becomes visible, in the other moving the object from the centre to the periphery and marking the points at which the object ceases to be seen, we shall obtain two fields of vision of unequal size, the former being the larger in every direction" (König). Simulation is here excluded unless the patient knows the symptom and has practiced with the perimeter. (3) We find that if we press on painful points (in traumatic neuralgia) the heart's action becomes increased so that the pulse may rise from nineteen to thirty beats to the quarter of a minute (Mankopff), a condition which can only very rarely be produced at will by the patient. The absence of Mankopff's symptom does not, however, necessarily prove simulation (Strauss, *Berliner klin. Wochenschr.*, 1892, 48). (4) Rumpf has described a sign which he has called "traumatic reaction of the muscles." If a strong faradic current be allowed to pass through a (painful) muscle for from one to two minutes, the muscle does not at once return to its position of rest, as it would under normal conditions, but presents for a considerable time fibrillary or even clonic twitchings (*Deutsche med. Wochenschr.*, 1890, 9). If we add (5) the quantitative diminution of the galvanic excitability of the motor nerves which has also been pointed out by Rumpf (*loc. cit.*), we have at our command means sufficient to meet the attempts of simulators, who, according to some physicians, are constantly increasing in number.

Among all these symptoms there is, with the exception of the traumatic reaction of the muscles, not one that is pathog-