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A CLINICAL LECTURE ON MINOR EPILEPSY.

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GENTLEMEN,—I propose to-day to ask your attention to some of the features of minor epilepsy. There are diseases which can be demonstrated and described, and there are some which can only be described and cannot be demonstrated. That is the case with very rare diseases, of which an opportunity for observation offers itself seldom, and it is also the case with many paroxysmal diseases, the manifestations of which cannot be produced at will, nor can their occurrence be anticipated. Epilepsy is one of these diseases. Neither the student nor the practitioner has often an opportunity of observing attacks. I have here before you four patients who are liable to epileptic seizures, on the chance—but I fear it is a slender one—that some one of them may present its symptoms for your observation.

Paroxysms of epilepsy differ in severity between extreme degrees. They vary from the most violent disturbances of which the human frame is capable to attacks so slight as to be only noticeable on close observation. It is customary to divide epilepsy, according to the severity of the attacks, into "major" and "minor" epilepsy, major epilepsy being a condition in which the attacks present obtrusive convulsion; minor, those in which convulsion is absent. In the severe attack there is violent, wrenching spasm, fixing the body in some strained position, and slowly changing to vibratory spasm, which becomes more and more distinctly jerky or clonic, until at last the contractions are separated by actual intermission. Tonic spasm, the physiologists have taught us, consists in the superposition of clonic contractions; hence we can understand that the change from tonic to clonic spasm occurs by the contractions which, overlapping, produce the tonic spasm, gathering themselves together, as it were, uniting their efforts, and so producing the more shock-like contractions, which are separated first by remissions, and then by intermissions as they coincide.

ORGANIC AND IDIOPATHIC EPILEPSY.

The slighter forms of convulsive attack in idiopathic epilepsy consist of tonic spasm only, slight general rigidity. But that is not the case in what may be termed "organic epilepsy." In this, the slighter attacks consist of local clonic spasm. By "organic epilepsy" I mean that which is the result of focal disease of the brain, either active disease or an old stationary lesion. In such case the attacks begin by clonic spasm in some one part, in one limb for instance, which remains limited to that particular part, and does not become general.

In idiopathic epilepsy, between the severe fits with obtrusive convulsions and in the slight fits without convulsions, there are others in which there is slight general tonic spasm, not violent, not passing into clonic spasm. These really constitute an intermediate class between the major epilepsy, or *haut mal* as it was termed by the French, and the minor epilepsy or *petit mal*. There might well be made a separate class under the name of "medium epilepsy," for Nature ignores our sharp distinctions, and there is every gradation between the most severe and the most slight. We have to

classify and distinguish, in order to learn, and we have even to separate, only we must beware of separating too widely.

Epilepsy, from whatever side we regard it, is a mysterious disease. We cannot help being almost startled when we consider the instant violent transition from perfect repose of the centres to energetic release of nerve force without any apparent cause. It is less anomalous, though not less remarkable, if we compare with it the intense activity which the perception of danger induces in an animal, whether the warning sensation is by the sense of sight, or smell, or hearing. The slightest sound will cause the creature to bound away, every muscle in energetic action. This compels us to assume a degree of delicacy of equilibrium in the motor and other centres which lessens our surprise that the balance should be liable to disturbance that is spontaneous, or seems to us to be such, where the elements of nutrition are even slightly imperfect, and the functional susceptibility is too finely adjusted for stability to exist under even tranquil conditions. But an additional mystery is the limitation of the morbid action, the way in which it often is restricted to the slightest motor disturbance, or to a derangement of consciousness or of sensation alone. The affection of consciousness seems indeed to be due to an inhibition, and this may also be true of the motor centres, but we are ignorant of the relation of inhibition to discharge save an apparent difference in degree.

In a severe epileptic fit there is loss of consciousness, whether it be a fit of idiopathic character, or due to organic disease. But distinction between the two classes is that generally the spasm occurs first in organic epilepsy, the unconsciousness first in idiopathic epilepsy. Organic epilepsy consists in the discharge which begins at the damaged spot of the brain, and spreads thence; only after it has spread widely, and often with some deliberation, does consciousness become involved. In idiopathic epilepsy the tendency to discharge is widely spread in the brain. The discharge is extensive from the first, and so consciousness becomes involved often at the very outset, and almost always soon after the onset; so that only some slight sensation indicates the part of the brain in which the initial maximum disturbance occurs. Minor attacks conform to this rule. Loss of consciousness, or at least some impairment of consciousness, is the leading feature in the minor attacks of idiopathic epilepsy. Local limited spasm is a leading feature in minor attacks of organic epilepsy. It is to the minor form of the idiopathic disease that I propose to draw your attention to-day.

"MINOR EPILEPSY."

In perhaps the most typical form of minor attack, although not quite the most common, loss of consciousness is the only symptom. It occurs for a moment, and often without the patient being in the least aware of it. The suddenness of the loss and return are so absolute as to leave no sensation that can be recalled, and of the actual unconsciousness itself the patient is of necessity unaware. The loss of consciousness may or may not be attended by muscular relaxation. It often is; then the patient will fall. One gentleman, for instance, was dressing by the side of his bath, when he suddenly found himself wet all over. He had had a minor epileptic attack, had fallen into the bath, had got out again before regaining complete consciousness, and only realised that something had happened by his wet clothes. (The case illustrates the fact that the muscular relaxation may be instantly followed by ordered movement before consciousness returns.) In other cases of the kind the patient, when talking, will suddenly stop for a moment, and then go on with the sentence he was uttering, or he will suddenly stop any action he is performing, and then go on. Sometimes anything in his hand is dropped. In such cases the loss of consciousness is

sudden and too brief for more than a moment's interruption of what is being done. But it is more frequent for the loss to be more deliberate in its occurrence, so that the patient is conscious of some sensation attending it. To these sensations I will refer immediately.

There is, in these extremely brief attacks of unconsciousness, no change in the aspect of the patient. There is no change, at least in the colour of the face or in the pupils, at the moment of unconsciousness. The patient may look, as it is said, a little "blank," but that is all. I mention this because some years ago great weight was attached to pallor of the face in epilepsy, even in the slightest form, as being an indication that the epileptic attack depended on anæmia of the brain. Pallor of the face would not necessarily indicate anæmia of the brain any more than the blush of emotion indicates cerebral hyperæmia. We are not justified in drawing an inference regarding the condition of the deeper circulation from that of the surface, unless we know that there exists a cause capable of disturbing the two—as a mechanical cause acting on the vessels connected with the whole region. But I have had an opportunity on two or three occasions—it is a very rare opportunity—of observing the state of the vessels of the retina during an attack of minor epilepsy; I was looking at the vessels of the retina by the direct method of observation at the time the attack came on, and on no occasion was any change in the size of the retinal vessels to be discerned. When pallor occurs in connection with these attacks, the pallor occurs as the attack is passing off and not at its onset, and the pallor of the face must therefore be regarded as a consequence of the cerebral discharge and not as its cause.

In addition to the fall which occasionally occurs, another occasional symptom is micturition. Urine may be passed even during the slightest epileptic attack, and it is, I need not say, a symptom of very great diagnostic importance. It occurs even with a loss of consciousness almost too brief to be noticed, and is evidently a special feature of the epileptic discharge, and when it occurs it is usually almost constant. For instance, one patient always first turned her head to the left and then walked back a few steps, then fumbled with her hands for a few moments, and passed urine. Micturition is far more common in females than in males, perhaps on account of greater facility, and may occur with spasmodic energy when there is only the slightest general stiffness. It sometimes seems to relieve the cerebral tension.

When the onset of the attack is less instantaneous some sensation may accompany the onset, when the discharge commences at some part of the brain to which a sensation is related. It may actually constitute the chief part of the attack, although some change in consciousness is usually associated. But an attack of true minor epilepsy may occur without actual loss of consciousness. The statement which is often made, that loss of consciousness is an invariable and essential feature of epilepsy, is certainly erroneous. There is usually, however, some obscuration of consciousness which may have various forms. One of the most frequent is a sense of strangeness. The patient feels for the moment as if in unfamiliar surroundings, does not recognise the place in which he is, even though it may be perfectly well known to him. The various sensations which accompany these attacks are numerous, but some sensation so frequently occurs in the majority of cases as to cause them to be spontaneously designated by the patient as "sensations." Sometimes they are termed "turns," sometimes "faints," and in America "spells," but the word "sensation" is that most frequently employed.

In connection with the names of attacks, let me give you a word of caution never to employ the word "fit" in the presence of a patient, unless you know that the attacks have previously been designated to him as "fits." It is strange what a profound prejudice and dread exists regarding the word "fit." It is thought a painful stigma to fix on the individual. Very often, I am sure, the patient does know, or strongly suspects, the truth; but the friends have an extreme dread lest the knowledge should reach the sufferer. Hence you may easily occasion great distress by the inadvertent use of the word "fit." You can always call the seizures "attacks" or "faints."

The sensation which attends these attacks, if the patient has severe fits, is sometimes the same as that which heralds the major seizures. Sometimes it is quite different. It is

often uniform in the same case. But a very important fact regarding minor epilepsy is that the patient, or the patient's friends, in a very large number of cases, have no idea of the connection between the slight attacks and the severe ones; they have no idea that these attacks, "turns," or "sensations" have anything to do with the epilepsy from which the patient is known to be suffering. And if you ask for these slight attacks in a general way you will learn nothing about them. You can only, in the majority of cases, ascertain their existence by putting leading questions; and to do that you must know what are the chief forms which these attacks assume, what are the chief sensations by which they impress themselves on the consciousness of the patient. By asking specially for these you will frequently learn the occurrence of these attacks when they had been denied in answer to a general question. It is not at all uncommon for patients to suffer from these minor attacks for many years before having a severe one, without any suspicion of their nature; and the patient who has occasional severe attacks, for instance at night, will often have many slight ones in the daytime, without anything being known or suspected of their significance. Remember that much more caution is necessary in the use of "leading questions" when the object is a scientific investigation than when the facts are to be ascertained for the treatment of the patient. Yet a little care, discernment, and further questioning will generally eliminate any danger of error from this cause.

SENSATIONS ATTENDING MINOR ATTACKS.

Of the sensations which attend these attacks, one of the most common is some form of vertigo. Remember, however, that the term "giddiness," in about half the cases in which it is employed does not mean what we understand by the word. It does not mean a sense of movement, either in the patient or in other objects. It is employed as the only term the patient can find to express some peculiar sensation in the head, or some mental sensation. It is often used when the patient simply experiences the sense of strangeness and unfamiliarity of his surroundings which I just mentioned. Hence it is always necessary to ascertain as minutely as possible the character of the sensation to which the patient applies it. Often there is an actual sense of vertigo. It may be either subjective or objective. The patient may seem to be moving forwards, backwards, or to the right or left, and not infrequently downwards. I saw a patient only yesterday whose attacks consisted in a sudden intense sense of sinking down into the earth, accompanied with an indescribable feeling of anguish, as if she were going to die. Each attack only lasted a moment, but so distressing was the feeling that she had learnt to dread it extremely.

The objective vertigo is sometimes a movement of objects to one side or to the other, usually corresponding in direction to the subjective vertigo if this is also present. Often it is a vague oscillation of objects, and very often it is a movement of objects round and round in a circle or an oval—not a rotation of an object round its own centre, but a movement of the object looked at as a whole. The movement is almost always in the direction in which the hands of a clock move. The cause that determines the direction is mysterious unless it is simply due to association, and ultimately referable to our right-handedness. Vertigo always involves some impairment of consciousness; even in that due to ear disease there is an erroneous perception of the relations of the individual to his surroundings, and such erroneous perception involves some obscuration of perfect consciousness. The degree of obscuration varies much. The patient may have this giddiness and yet know perfectly where he is and who is with him, or the consciousness of environment may be impaired in slight or considerable degree, and he may even become quite unconscious for a moment. We meet with all these degrees in minor epilepsy. Sometimes the vertigo, when subjective—a sense of personal movement—proceeds to actual movement. Vertigo is generally a motor sensation, due to activity of the motor centres, and the patient may always fall in the direction in which he seems to be turning. Sometimes this motor activity may induce actual rotation, but less commonly in minor epilepsy than as the prelude to a severe attack, before which a patient may turn round two or three times and then fall.

Another curious sensation, which, in the mixed use of words, is sometimes described as "giddiness," is a dreamy feeling. It may occur with or without that imperfect recognition of surroundings that I have referred to, but it always involves some degree of obscurity of consciousness. It has been specially studied by Dr. Hughlings Jackson. It is sometimes described as a distressing feeling, sometimes as a positively agreeable sensation. It is, curiously enough, often associated with smacking of the lips, but smacking of the lips often occurs in the moment's unconsciousness of the minor attack without any dreamy feeling being afterwards remembered. In one case which I saw not long ago in which this dreamy feeling was very strongly marked, and in which it was of a definitely pleasurable character, it was always accompanied by spitting. The patient always spat with his lips; he did not smack his lips, but definitely spat. He knew he did it, but he could not help it. He had no sensation of taste accompanying the action. A feeling allied to that of a dreamy state, and sometimes described as such, is a sudden conviction that what is happening has occurred previously. This is very common indeed. Sometimes there is a sensation that the like circumstance occurred long years ago; sometimes that the patient is in a dream which recalls a preceding dream, neither seeming real. Occasionally it is associated with movement of the lips, but in the majority of the cases in which each symptom is present the other is absent. A similar mental sensation is said to occur in health. Some of you may remember the amusing reference to it in the *Autocrat of the Breakfast Table*.

Another class of sensations which attend these minor attacks are those related to the special senses. Loss of sight may occur, sudden inhibition of the visual centre; a moment's darkness may be the only indication of the minor attack. Or there may be a sensory discharge, a visual sensation; a flash of light may pass across the sight, or colours may be seen, or stars. Stars are perhaps the most common, either simply bright lights or coloured lights. It is rare to have an hallucination of definite objects in minor epilepsy, although they are frequent as the warning of severe attacks; and then are curiously associated with vertigo. The objects seem to move towards one side; the patient feels obliged to follow them, turns his head and eyes towards that side, until he inclines and falls.

Auditory sensations are not uncommon, and usually occur in cases in which they constitute also the warning of a severe attack. Some sound is heard, and often it is a musical sound. I remember one case in which such a subjective aura could be at any time brought on by a certain note of the organ. It was the note which is known as the "lower A of the open diapason of the pedal"—an expression which may convey a clearer idea to some of your minds than it does to my own. I believe it is one of the low notes which can be felt as a vibration as well as heard. Whenever the patient heard that note, it produced the warning sound in his head and a sense of strangeness as if an attack were coming on. As with vision so with hearing, more elaborate sensations are not often met with as the warnings of the slight attacks. A gustatory sensation very rarely attends the minor attacks, although smacking of the lips is so common; an olfactory aura is much more frequent. It is usually an unpleasant sensation, something which is compared to sulphur; to burning putrid meat, but sometimes it is a fragrant odour.

General sensations are common in connection with these minor attacks, feelings referred to the whole frame. It is important to remember this, because such sensations are equivocal in suggestiveness. A sudden thrill or vibration passing through the body is described, or a sensation of something rushing through the body. In these cases the sensation seems always to pass upwards, generally to the head, and then there is a moment's unconsciousness. Sometimes the feeling seems to pass up the back. Often it seems to the patient to be a "rush of blood" to the head, and is so described, but it is a sensation only, and too rapid to be of the nature it seems to have.

The occurrence of loss of consciousness when a sensation reaches the head is a curious thing, and is met with also in the case of the epigastric warning, which is a sensation at the pit of the stomach, rarely lower, which ascends to the throat or to the head. If it ascends to the throat it may stop and

pass off; if it ascends to the head there is usually momentary loss of consciousness. It is a common warning of severe attacks, as well as of slight ones. Sometimes it is accompanied with a sense of nausea, but not often when it ascends. When it is accompanied by the sense of nausea it usually remains limited to the epigastric region, and is often described as a sensation of something turning over and over.

Emotional states are also occasional accompaniments of the minor attack. There may be a sudden sense of fear, causeless fear, or a sense of fear which seems to induce some peculiar momentary delusion to which, indeed, it is referred. One patient, for instance, was always convinced that the sense of fear was due to a man who was running behind her. She lost consciousness for a moment, and then was better. She knew afterwards that it was an illusion, but she never could avoid the conviction when a minor attack came on.

Perhaps what I may call the lowest form, which we must nevertheless regard as a form of minor attack, is a sudden start, a sudden jerking of the limbs without interference with consciousness. The patient's hands will give a sudden jerk, sometimes such as to throw away anything that is held; the jerk is always symmetrical, and its relation to epilepsy, about which we might otherwise feel doubtful, is shown by the fact that such jerks frequently occur a few days or hours before a severe attack or for a few days after one. The start is sometimes of the whole body, and may even be sufficient to throw the patient down. Such starts, moreover, are sometimes associated with distinct momentary unconsciousness. A more elaborate motor process accompanying minor attacks is an ordered movement. The patient may run a few steps backward or a few steps forward. Sometimes this seems to be the result of fear. One patient, when I was speaking to her, suddenly looked frightened, gave a little cry, ran away down the ward, and then was better. She always did this in her slight attacks, but remembered nothing of it afterwards; the action took place during momentary unconsciousness.

A converse state of the motor system is the sudden muscular relaxation already mentioned. When consciousness is absolutely lost for the moment, there may or may not be muscular relaxation. The patient may go on standing still or walking. In other cases, however, the muscles suddenly give way, and the patient falls, and then is better. I mentioned an instance just now in the case of the gentleman who fell into his bath.

We meet with more prolonged muscular relaxation in organic epilepsy, the result of inhibition of the motor centres similar to that which in the sensory centre gives rise to the loss of sight or loss of hearing. I have mentioned one patient, for instance, whose attacks began by twitching in one hand, passing up the arm, and becoming general, and had also minor attacks, consisting in sudden powerlessness of the arm, lasting several minutes. Such powerlessness in the minor attacks of organic epilepsy is always much longer in duration than the momentary general muscular relaxation which occurs in the idiopathic form of epilepsy.

Many patients have various forms of warning—momentary loss of consciousness, brief vertigo, and a sudden sense of strangeness, may all occur in the same patient. The epigastric sensation, with obscurity of consciousness, may be varied by a rushing sensation through the body or a sensation referred to the special senses. Hence it is impossible to anticipate what diverse forms any patient may experience, and it is essential to be familiar with the chief varieties to ascertain their occurrence. By a little cross-examination on an affirmative answer you can easily eliminate any source of fallacy. If you ask about giddiness, for instance, and a positive reply is given, you must always ascertain the precise character of the sensation which is experienced. In the case of the other forms of minor sensation, I think it is very rare to have their occurrence mentioned, even in answer to a leading question, unless they do actually occur.

AFTER-STATES.

A very important relation of minor attacks is the peculiar condition in which they frequently leave the patient. Normal consciousness is often regained slowly. The patient for a minute or two is in a somewhat dazed condition; he may fumble with his hands—or, if I may say so, fumble with his mind. One patient of mine invariably takes out his watch

and says, "Oh what is the time?" A more common thing is to say, "Where am I?" And when the recovery of consciousness is deliberate, action in some patients is of a more elaborate character than simple fumbling; action performed automatically in a state of imperfect recognition of surroundings, as a result of some dominant idea, vague or precise. A very common thing is for the patient to begin to take off his clothes. I think that is perhaps conditioned by some obscure sense of illness or indisposition or languor, which suggests to the patient that it would be well to go to bed. It is, however, sometimes an awkward thing, as for instance, in one case which I have mentioned elsewhere. A young man who was accustomed to give lessons on the piano to young ladies, had to give up his profession because he occasionally had a slight attack, so slight as to be unnoticed; and after it would begin to take his clothes off, to the more than astonishment of his pupil.

Many and curious are the incidents which occur in this condition. Some patients have a tendency to put into their pocket whatever is within reach of their hand; and this automatic action may give rise to very inconvenient suspicions. One patient, a draper's assistant, would put scissors, money, or anything which was within reach of his hand, into his pocket after an attack so slight as to attract no attention, and when missing objects were found in his possession it was some time before he received a pathological exculpation. There is no doubt that such post-epileptic appropriation has often given rise to an entirely erroneous suspicion of dishonesty. In the case of the patient just mentioned, who put into his pocket whatever was within reach, the minor attacks were characterised by a nasty smell, and then loss of consciousness. He had, curiously enough, also other attacks, of which he was only aware by being suddenly conscious of a ravenous feeling of hunger, and of an attempt to satisfy it if practicable. If bread and butter was within his reach, he would only know he had had an attack by finding himself cramming it down his throat, and he would be much surprised at what he was doing. This state of automatic action may last for a considerable time after an attack. The action performed in that condition is sometimes most elaborate. It is a condition of apparently voluntary action, only in a curious condition of consciousness which cannot be hitched on, as it were, to the normal consciousness which the patient afterwards regains. A carman had an attack of minor epilepsy when driving through the streets of London; the attack was not sufficient to interfere with his retention of his seat, and about half an hour afterwards he found himself about six miles from the place he wanted to go to, having driven through the crowded streets of London quite safely, but in a wrong direction, and with no power of recollecting the proceeding. A lady playing a piano, having a slight attack, went on playing most elaborate music with perfect correctness, until she suddenly "came to herself" and stopped, unable to understand what she was doing.

Those are examples of extremely organised automatic action. To pass to the other degree, the patient, instead of action of an elaborate character, may pass into a state of the most unelaborate action that can be conceived, namely, that of hysterical convulsion. It is extremely common for a patient after a minor attack to pass into a state of violent hysteroid convulsion, which usually only lasts for five or ten minutes, or, at most, a quarter of an hour. Such hysteroid convulsion may follow a more severe attack, but it never follows an attack of great severity. A violent attack seems to exhaust the motor centres too completely to permit of this unrestrained activity. If the symptom succeeds a convulsion this is slight, and it is more frequent for there to be no preceding convulsion. The patient suddenly becomes still, may fall unconscious, may be stiff for a moment, and then passes into the condition of hysteroid disturbance, throws the arms about, kicks with the legs, may become rigid with arching of the back. It does not last long but is often violent for the time. Such cases are commonly thought to be simple hysteria, but pure hysteria does not recur during a long course of time, as do the attacks of hysteroid convulsion which are post-epileptic. If you make inquiries in such a case you will find a history of the moment's initial stillness, and also a clear history of other minor attacks, apart from those with hysteroid disturbance. The patient has an epileptic "faint" from time to time, or an epileptic "sensation," and only some of these attacks are

followed by the hysteroid symptoms. It is frequently said that a patient has had slight faints during childhood, and then at the time of puberty has become liable to severe fits, but you will often find on inquiry that simple minor attacks occurred during childhood, and at puberty, when the peculiar hysteroid temperament became evolved, hysteroid convulsion was superadded to the minor seizure that the patient had had before—a post-epileptic disturbance, mistaken for severe epilepsy.

The automatic action that I have alluded to as a more elaborate disturbance, having the same relation to the epileptic seizure, may assume the form of some act of violence. That is indeed the condition of epileptic mania. One patient of mine, after a slight attack, took her baby, of which she was very fond, and threw it downstairs. In another case a man had a slight attack while crossing a crowded thoroughfare. He stopped dazed in the middle of the traffic. A gentleman, who was also crossing, seeing his condition, took hold of his arm and conducted him across the road. On reaching the pavement the patient, recovering imperfect consciousness, turned on his rescuer and struck him a violent blow. No doubt many crimes have been committed in that condition.

Another accident which may follow a slight attack, as well as a severe one, is vomiting. It is not common after slight attacks, not so common as a sense of nausea. But actual vomiting does sometimes occur, although it is seldom dangerous in slight attacks, because the patient recovers consciousness first. In severe attacks it may involve grave risk to life, because the food brought up (if the patient be lying on the back) is apt to fall into the larynx, and in the state of unconsciousness may give rise to fatal asphyxia. Death from an epileptic fit occurring just after a meal is generally due to this mechanism. It is wise to impress on the friends of a patient who vomits soon after a fit the importance of laying him on his side or in a half-prone position.

Another post-epileptic accident which occurs sometimes after slight attacks, as well as after severe ones, is turning on the face. After a severe attack the patient often turns so that the face is against the pillow. After a slight attack it is rather the result of a half hysterical automatic movement. But it is attended with danger of suffocation after slight attacks, as well as after severe ones, especially when they occur during sleep. It is not very rare for an epileptic patient to be found dead in bed with the mouth against the pillow. It is then certain that such post-epileptic asphyxia was the cause of death—the inference is equally sure in the case of persons not previously known to be subject to epilepsy, for nocturnal fits often occur for years undiscovered.

DIAGNOSIS.

The diagnosis of minor attacks depends upon the suddenness of their onset, their brief duration, and their occurrence apart from obvious exciting causes. The chief difficulty is often thought to be their distinction from syncope, but it is seldom considerable. Patients suffer from cardiac syncope only when there is some obtrusive cause: violent emotion, as at the sight of blood, or fatiguing exertion. In syncope the patient loses consciousness gradually, and recovers with the sense of physical faintness. In minor epileptic fits the patient loses consciousness quite suddenly, and recovers with a sense of mental confusion. The cardiac syncope is never preceded by any of the sensations which I have been describing, except that of nausea, and it is accompanied by failure of the pulse and initial pallor of the face, whereas in epilepsy the pulse is unchanged, and the pallor of the face only occurs as the attack is passing off.

A much more difficult point in diagnosis is the distinction from some forms of vertigo, especially from forms of aural vertigo, in which an attack comes on, as it does sometimes, with great suddenness, accompanied with a distressing sensation in the head. There, however, we have always the evidence of prolonged continuous disturbance of the auditory nerve, persistent tinnitus, and some deafness; the vertigo usually continues after the severe attack is over, and only gradually ceases. But remember that vertigo involves an impairment of the correct perception of the surroundings of the sufferer—that is, impairment of perfect consciousness. That is true of aural vertigo as well as of other forms, and in intense sudden aural vertigo this impairment may amount,

in rare cases, to a moment's actual loss of consciousness; so that, just as epileptic attacks may occur without loss of consciousness, so sudden attacks of simple vertigo may occur with loss of consciousness. Therefore you must not rely absolutely upon such loss as a criterion of epilepsy, any more than of its absence as proof that an attack is not epileptic.

I have already spoken of the combination of minor epilepsy with hysteroid symptoms, which is often perplexing and a fertile source of error, since the spasmodic hysterical disturbance is generally by far the most obtrusive. You will, however, find any difficulty disappear if you attend to the facts I have mentioned, and especially if you remember the constancy with which such patients occasionally have some form of minor attack, without this accompaniment.

TREATMENT.

I have left myself little time to speak of the treatment of minor epilepsy. It is much less easy than the treatment of the severe form. Bromide exerts an influence on minor epilepsy with much less constancy than it does on the severe attacks. It is common for a patient to have severe attacks entirely arrested by bromide, and for the minor attacks to continue. This is not, however, always the case. Sometimes it stops the slight as well as the severe ones, and it may stop the attacks in a patient who has only the minor form. Unfortunately, we are not able to discern what will happen in any given case. In the case of all drugs and all forms of the disease, it is most difficult to discern "indications" for treatment; conditions which seem to have determined success in one case are found, in others to have no value. We can only try, and see the result. When bromide fails zinc sometimes succeeds, and after trying various forms of zinc—citrate, lactic, sulphate—I think the oxide, on the whole, gives us as good a result as any, and is better borne; although the dose that can be borne varies in different patients. Some patients are nauseated unbearably by three-grain doses, while others will take 8 or 10 grains. Borax is less useful in minor epilepsy than in the inveterate cases of severe epilepsy, in which it is often of marked service, as I pointed out when I introduced it twenty years ago. In such it is often of marked service, either alone or in combination with bromide, though it very seldom arrests attacks altogether. In the case of minor epilepsy among agents which are sometimes clearly successful—clearly so because cases in which there is no change in other elements of their condition have been benefited and even arrested—are nitro-glycerine, given three times a day, and the hydrobromate of hyoscyne, belladonna, and Indian hemp. Strychnine is occasionally of service, especially in combination with nitroglycerine.

Perseverance in effort is, above all things, necessary to do good, and especially persistence in treatment for a long time after attacks have entirely ceased. When there have been some months of freedom, the temptation to omit the inconvenient dose is strong, but it is then that the need for its continuance is greatest. The patient is then on the road to a cure, but the tendency to recurrence is then greatest, and even a single attack puts the patient again at the beginning of the long road. When the treatment is discontinued, it should always be by a gradual diminution, and not by sudden cessation. It is most important also to remember that patients who have previously had severe attacks are sure to have an early recurrence, after discontinuance of treatment, if they still have an occasional distinct minor attack, however slight.

THE OLD BECKTONIAN CLUB.—A dinner of the "Old Becktonian Club" was recently held at the Trocadero Restaurant, Mr. L. Mantell in the chair. In proposing the toast of the evening the chairman said Mr. Beckton had performed an important service to the medical profession in his long career as a "coach." The club numbered in its membership both qualified men and students; every hospital was represented in it, and it should prove a valuable link between the different schools. Mr. Beckton, in responding, expressed the deep pleasure he felt in seeing so many of his old pupils. He had a pride in remembering how many of his former pupils now occupied prominent positions in the profession.

TWO CLINICAL LECTURES ON RETENTION OF MENSTRUAL BLOOD FROM ATRESIA OF THE VAGINA

WITH SOME PRELIMINARY REMARKS ON THE INDICATIONS FOR
LOCAL EXAMINATION IN THE DISORDERS OF
MENSTRUATION.

Delivered at St. Thomas's Hospital November 14th and 17th, 1899.

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LECTURE I.

GENTLEMEN,—One of the constantly recurring difficulties of the conscientious medical practitioner is to know what his duty is in regard to a local investigation in the disorders of menstruation. The difficulty is especially pronounced when the patient is young and unmarried. The medical attendant desires, on the one hand, to avoid unnecessary examinations, and is anxious, on the other hand, not to overlook any serious local lesion, for if he is treating his patient by constitutional remedies alone when all the time the cause of the disorder is an undetected local lesion requiring local treatment for its cure, he will not only be jeopardising his own reputation, but will be doing a wrong to his patient. Is it possible then to lay down any rules for our guidance in this matter?

I have spoken, in a preceding lecture, of what I conceive to be the proper course to adopt in regard to local examination in cases of dysmenorrhœa—namely, to avoid such an examination whenever it is possible, and especially in cases where there is no reason to suspect a tumour, cicatricial contraction, or other definite local obstruction. In all ordinary cases a local examination should only be resorted to when the suffering is extremely severe and disabling, and where the usual methods of treatment have failed to afford relief. In these cases of exceptional severity an examination may be justifiable either in order to exclude, once for all, the possibility of serious local lesion, or as a preliminary to local treatment by dilatation of the uterine canal.

In cases where the menstrual disorder is in the direction of excess—cases, I mean, of menorrhagia or metrorrhagia—a prompt local investigation as to the cause of the hæmorrhage should be the rule. There is no class of cases in which delay is more liable to be dangerous. It is only necessary to remind you that hæmorrhage is almost invariably the earliest symptom of uterine cancer, and that the neglect of it is the reason why so many cases of uterine cancer are only discovered when it is too late to do any good. The neglect is often on the patient's part, but sometimes it is on the part of the medical attendant, who has failed to recognise the need for local examination. Leaving cases of cancer, however, for the moment, out of the question, the rule to institute a local examination wherever there is uterine hæmorrhage is a sound rule, for the simple reason that uterine hæmorrhage is almost always due to a local lesion. And where there is a local lesion all treatment must be haphazard until the nature of the lesion is known.

I am quite aware that the necessity for local examination in these cases is not urged quite so strongly by all teachers, but the greater my experience the more I am confirmed in the rule here laid down. The only exception I would make is in those cases where the hæmorrhage occurs at the onset of the menstrual life. It sometimes happens that the first period is alarmingly profuse. The chances in such a case are against the hæmorrhage being due to a local lesion. If the hæmorrhage, however, were repeated time after time, or if menstruation, after being normal at first, began in a year or two to be excessive, the fact of the patient being young and unmarried would not obviate the necessity for a thorough internal examination.

Only within the last few weeks, I saw in consultation a thin, pale, delicate, nervous girl, aged 18, suffering from menorrhagia. She had seen several consultants, and had had much useless treatment of a general kind. The practitioner in attendance thought that the time had arrived for a local