On General Paralysis by Dr. Harrington Tuke.

It is with reluctance that I attempt any definition of the disease that we have agreed to call the "general paralysis of the insane;" definitions are always difficult, and moreover they very frequently involve a *petitio principii*, that renders them practically useless. I have ventured, however, to group together some symptoms that may be taken as signalizing this dread disease, premising that some of my postulates may be questioned, and that I only pretend to offer my views upon the subject, as those of an individual observer, who, holding strong opinions, is willing to submit them to the objections or criticisms of his professional brethren. My object is to draw truly, but in strong relief, the various shapes assumed by the malady, and to sketch vividly its diverse symptoms, even if wrong, in some of my conclusions, or apparently too dogmatical in my propositions. I am satisfied if I can at all assist in fixing the attention of the medical profession outside the pale of my own special department to a form of disease that is so familiar to us, and that they, in the interests of suffering humanity, will do well to study.

Paralytic insanity, the *paralysie générale* of Calmeil, the progressive paralysis of Requin and Rodriguez, the chronic meningitis of Bayle, the "general paralysis" of our own reports and case-books, is an organic disease of the brain or its membranes, usually evidenced by symptoms of congestion, followed by a change of character and disposition, unsoundness of mind, and with peculiar delusions, and synchronously by the more or less rapid approach of an entire muscular paralysis; it is a disorder almost confined to middle life, attacks the male rather than the female sex, and if not checked at its outset, is fatal within three or four years of the first appearance of its symptoms.

I can easily foresee the many objections that the alienist physician, accustomed to see this frightful disorder in all its phases, will at once take to this definition, but I do not intend to convey the impression that I have in this embodied all the various symptoms of general paralysis, I have only fixed upon the type of the disease, as I have myself seen it, and I propose to consider *seriatim* the various symptoms I have here enumerated, giving to each its proper value; the absence of one or other of them in a particular

case, will by no means invalidate the general correctness of my definition, just as in consumption, hœmoptysis may be considered as a grave and almost essential symptom, although there are many cases in which pthisis proceeds to its fatal termination, without the appearance of this significant evidence of thenature of the malady ; and, as in fever, the high pulse and fevered tongue, and heat of skin, indicate serious febrile disturbance of the system; it is not because any one of these symptoms is important, but because of their significance taken together, that we are enabled confidently to pronounce upon the nature of the disease.

The progress of general paralysis may be divided into three stages; in the first stage the patient rarely comes under the supervision of the alienist physician, and I have already dwelt upon the danger that he runs of his disorder being misunderstood, from the ignorance of his medical attendant, and the natural unwillingness of his friends to acknowledge the existence of mental derangement. The second stage is that which is to be found in the wards of every asylum, distinct and indubitable evidence is present of mental disorder, and such a case cannot be mistaken. In the third stage the patient becomes helpless and demented, all power of voluntary movement is lost, even that of reflex movement is impaired. I have already described these last symptoms, and they are not practically of importance, as the history of the case will always lead to its correct diagnosis.

I do not know that it is very essential to insist upon the division of general paralysis into various stages, it will be seen that they indicate only progressive intellectual and physical weakening, they usually melt into each other by almost imperceptible gradations; and, although sometimes they are very clearly marked, it is often impossible to make any difference between them, that which I have called the third stage, sometimes appearing as the first, or alternating with the second. The important stage is that of incubation, in which the early symptoms appear, and in which the only opportunity of successful treatment appears to exist. The physician engaged in the treatment of this disease among the middle and upper classes of society, has afforded to him a better opportunity of hearing a more correct and distinct account of the early rise and progress of the disorder in each case than falls to the lot of his professional brethren in the public asylums ; but even in the imperfect annals of the lower class, there is abundant evi-

dence of a stage of incubation, which might be susceptible of great and permanent relief, and it is not too much to hope that the precursory symptoms of this disease once understood by the profession at large, its fatal progress may be arrested; that the medical attendants of our charities like Bethlem and St. Luke's may not so often have the pain of sending away applicants for admission as being in the second stage of the disease, and, in their opinion, beyond the hope of cure; and, that it may not always be the painful task of the special physician, to be forced to give an opinion which he knows to be the true one, but at the same time feels must fall with a frightful shock upon the ears of relatives, who, altogether unprepared for the announcement of such a malady, consult him in the confident anticipation that his experience will suggest a remedy for what they consider a merely temporary excitement, their medical attendant has shared in their hopes, and often leaves the consulting room incredulous, even angry. Esquirol has exactly hit this point, which must be in the experience of us all; the case he gives is short, and the lesson it conveys is admirable: "M., had become irritable, and easily excited at the slightest opposition, he had refused all medicine, asserting that he was never so well or so happy. Dr. — a physician, equally talented as esteemed, brought him to Paris, and to me. 'I commit to your treatment, (said he) a most interesting patient, who is suffering only from transient excitement, your care, and separation from scenes that appear to augment his disorder, will speedily restore him to health.' I converse with this patient, (continues Esquirol) he tells me of his projects for the future, of his present happiness, the acquaintances he and his family will gain by their visit to Paris, &c. After half an hour I am asked my opinion; it is, that the patient will not recover, that he is incurable, and that he has not one year to live. At the expiration of seven months, this gentleman sank under a malady, which, at its commencement, appeared so insignificant in its character even to so distinguished and practised a physician as Dr. K—."

In going through the wards of an asylum for the insane, the student will find many cases, which he will soon learn to recognize as those of general paralysis; in these dementia has usually commenced, and the disease may be said to have arrived at its culmination. I propose, before considering the terms of the definition I have suggested, to describe shortly one of many such cases, exactly as I myself saw it

in the wards at Hanwell; it was one of those afterwards mentioned by Dr. Conolly in his Croonian Lectures, as an illustration of this disease, combined with occasional symptoms of depression. W. R., aged 37, a man of powerful frame, nervo-sanguineous temperament, head well shaped, good education; had been employed as a foreman of a fishing company in the North of Ireland. He had had great anxieties in the prosecution of this enterprise, had had alternate fits of excitement and depression; when I saw him he walked with the characteristic gait of general paralysis; his speech was affected: there were tremulous movements of the tongue when protruded. He told me that he had made his fortune; that Ireland would be the mistress of the world; that he was about to marry the Queen, though his own wife was most lovely; that he could sing better than Jenny Lind; that he was the greatest actor of the day; that he had twenty thousand men under his command, and expressed various other delusions of the same nature. Within a few months he had epileptic fits, or rather fits of an epileptic character, his disorder made rapid progress, and he died within two years, paralyzed and demented, but persisting to the last that he was never so well or so strong.

Here then is the type of this disorder, intellectual derangement, paralysis, epileptoid fits, and shortly after inevitable death, a death too of the most distressing kind; true that it is unaccompanied by pain, and the sufferer is unconscious of its approach; but it is not the less terrible to watch the gradual but rapid progress, from excitement to dementia, from that to utter insensibility, and then to dying hours in which the sufferer is unmindful of the presence of his dearest friends, unconscious of their tears, unable to understand the consolation of religion, unsoothed by hopes of another and brighter existence, and passes unthinkingly away, his last words being, perhaps, an expression of his conviction that he is the happiest of men.

In considering the symptoms I have indicated, many important questions arise, and these I will discuss as fully as I can, consistently with the essentially practical character of this essay.

The most important question in the consideration of any case in which mental derangement is a prominent characteristic, is whether the symptoms do, or do not, indicate the existence of organic brain disease. We may have functional disturbance, easily curable, or even temporary disorder, as in delirium tremens, which may be considered to some

https://doi.org/10.1192/bjp.6.31.79 Published online by Cambridge University Press

extent as organic, although certainly not hopeless; but if we are called on to treat persistent insanity, and with it there is undoubted evidence of cerebral lesion, we have a very serious form of malady to contend against, and one that will require all the resources of the art and science of medicine. I believe that the form of derangement, which we call general paralysis, is always connected with organic change in the brain structure, that it is not, as so many other nervous affections are, to be reached by moral treatment, or its dangers obviated by anything but direct remedial agents; and it is partly for this reason, that I think the early symptoms of the disorder should be more generally recognized and studied, and the improbability insisted upon of any treatment in the later stages being likely to do more than postpone a fatal result. In this disease as in pthisis, the initiatory symptoms may be met, and their progress arrested, but the disease once fully established, medicine is unavailing, except to smooth the path to death; and although it may certainly happen in both maladies that the issue may be less unfortunate, such an event from our present experience, is to be hoped for, rather than expected. To the trained physician, however, the formidable nature of the malady is only a fresh incentive to his efforts to subdue it; and as in all its stages, medicine and care may do so much to mitigate the severity of the symptoms, and avert their omens, it is not too much to hope that *general paralysis* may cease to be the opprobium upon our medical treatment that it is at present, partly, as I believe, from the almost universal ignorance of the general profession, as to its symptoms, which allows the moment to pass by, in which remedies may best counteract the disease, and often leads them to treat it erroneously as an affection of the spine or heart.

Very high authorities have declared, I think most unadvisedly, that general paralysis is incurable; but they have given no reason why, and we can only surmise that it is because they find organic disease of so serious a nature has been established in the brain, as to induce them to believe all treatment hopeless. Now organic disease of brain in its early stage should not be less curable than organic disease of the lungs; and if in the latter case, we have the valuable aid of the stethoscope, to guide us to correct opinion; I think the signs afforded by the peculiar paralysis of the insane, conjoined with the special mental symptoms, are hardly less positively diagnostic to the alienist physician, and a correct diagnosis once

arrived at, neither disease should be considered as absolutely hopeless.

Admitting, as every physician must do, the possibility of relieving and even curing organic brain disease, there is another symptom of great importance, whether regarded as a cause or effect of the malady, which reduces in many cases the chances of recovery. I allude to the peculiar "fits" that usher in or follow the early symptoms with either the paralysis or the mental alienation. It is a maxim as old as the school of Hippocrates, that "delirium with convulsion" is incurable; and, Esquirol has followed this dictum in his own well known aphorism: *L' épilepsie compliquée d'aliénation mentale ne guérit jamais.*

It will be seen how much resemblance there is in the fits that accompany general paralysis to those that mark epilepsy, and I should be much inclined to apply the same rule to this former disease, and state as my opinion that if the universal organic change in the brain tissue which causes the disease I have defined, be complicated with the severe local cerebral lesion that the epileptoid fits undoubtedly indicate, such a combination is incurable. It may be easily understood how it is that these cerebral lesions may be either the cause or the effect of the organic change; an epileptic fit of a centric character, may act upon and damage the brain tissue in such a way as to cause the peculiar morbid changes, whose results we recognize in the symptoms of general paralysis, in the same way as blows upon the head can frequently be traced to be the agents producing this form of disease; and, on the other hand, the general organic softening, or other alteration of structure, may, and frequently does, lead to fresh mischief, and to the production of epileptoid fits, always followed by an exacerbation of the original malady, and always indicative of a speedily fatal termination.

The consideration of the nature of these cerebral lesions belongs to another part of my subject, but I may shortly sum up the proofs of extensive organic mischief, irrespective of pathological appearances, which strike me as the most conclusive, in demonstrating this disease, to be quite distinct from all other forms of mental derangement, and of a much more serious character.

In the first place, setting aside the doctrine of the invariable hopelessness of general paralysis, it is certain that the disease is usually fatal within a short period, and this does not arise from paralysis alone, because paralysis supervenes

upon other forms of mental disease, and runs its course, much in the same way as it would do in an otherwise healthy brain; it may pass off, or the patient may live paralyzed for years, while either such issue is most rare in the special disease we are considering. In recent mental aberration, recovery of reason under proper treatment is the rule, in general paralysis it is the exception, by some, its very possibility is denied, although the mental symptoms alone even of the second stage, are so little significant of serious, far less hopeless disorder. Loss of one or more of the special senses is rare in ordinary lunacy, but is not uncommon in general paralysis, and lastly, the almost invariably concomitant convulsions, with long continued loss of consciousness, indicate structural, and taken together, idiopathic morbid change. It is true we may not always be able to demonstrate this by the scalpel or the microscope, nor has chemistry helped us to a solution of the mystery, yet we cannot but feel, that with such symptoms, it is hardly possible that a peculiar organic disease is not present, although it may escape our imperfect means of investigation.

I do not believe that general paralysis ever runs through its course without producing or exhibiting the phenomena of these epileptoid fits; they may often evade observation if not particularly enquired into, and their nature may be mistaken, but their pathognomonic value when properly understood, is very great, and their presence in the case in their special form is decisive as to the nature of the attack.

I was asked last year to see a patient in the city who had become maniacal, it was supposed from dissipation; he had cut to pieces the lining of cabs he travelled in, he had attacked strangers in the theatre, &c.; he told me that he was perfectly well, able to walk ten miles an hour, had never had a fit of any kind; this his friends confirmed, but at last remembered that about two months previously, he had fallen from the high stool in his counting house in a "faint," was insensible for half-an-hour, and since then, his demeanour had become so "strange." This history, in my opinion, justified my previous suspicion that the case was one of general paralysis in its early stage.

The form of these fits may vary materially, they may be very severe, and, in the latter stage of the malady generally are so. At this period, convulsive movements occur, particularly of the upper extremities, which may continue for hours; I have been obliged to pad the arm of a patient thus attacked, with soft pillows, to prevent his unconsciously

inflicting injury upon himself; during this time, the patient will remain perfectly insensible, and may continue so for days, but it rarely happens that death ensues as the immediate effect of the seizure, although it always seriously aggravates the former symptoms.

Although at the very outset of the malady, a very severe fit may occur, they are generally very much slighter, and bear a great resemblance to the *petit mal* of the French writers on Epilepsy.

One such "fit" I find thus recorded in my case book, as having happened in the course of an attack of general paralysis: "While sitting in the garden, Mr. —, became suddenly insensible; he did not fall; there were severe convulsive twitchings of the facial muscles, followed by rigor; the whole seizure lasting about three minutes, and leaving no immediate traces of its visitation. In the same patient, a second, and more severe fit occurred about three months afterwards, and within the year an attack of a still more marked character supervened with convulsions lasting for two hours, and perfect insensibility continuing for ten more. There can be no doubt that all these three seizures were of the same epileptoid character."

I have this day, August 26th, received from a surgeon in the country, who is perfectly unaware of the particular interest his patient's case is to me at this moment, a graphic account of the condition of a patient, in whom I hardly fail to recognize the symptoms of general paralysis. His description of a "fit" he himself has just witnessed, is singularly in unison with the general account I have given.

"A peculiar expression came over his face, then the muscles of both sides of it worked convulsively, and he became evidently quite unconscious; this lasted two or three seconds, he then stared about him a little, then became quite sensible, and talked, &c., as before."

Slight attacks of this nature frequently occur, and entirely escape the notice of the patient's friends, or if they are noticed, their bearing upon the case is disregarded, even by the medical attendant; I was able to diagnose special organic mischief in the brain of a gentleman, who died some years afterwards the subject of general paralysis, from the fact that I remarked distinct seizures of this kind of insensibility, while playing whist with him; the attacks were so transient, as not to have caused the slightest alarm to himself, or his family.

In one case in which I was consulted, the sudden falls of

a patient in an early stage of paralytic insanity, were attributed to weakness of the knee joints, to which he had been subject; his apparent recovery of reason a short time afterwards supported for a time this view of the case, but the more gloomy prognosis as to the nature of these falls, turned out to be correct one.

It is not unreasonable to imagine that these "fits" may frequently make their appearance without becoming known to the patient's family, especially if they happen at night, and the patient sleeps alone, or is absent from home at the time of their occurrence; a sudden change for the worse in a case that presents obscure brain symptoms, should always lead the medical attendant to enquire into the possibility of the existence of what Dr. Marshall Hall has called "hidden seizures." The following case narrated by him, illustrates this point, and to the psychological physician affords an example of "general paralysis," evidently unrecognized as a special form of insanity, although watched by an acute observer of disease.

"I was called," says Dr. Marshall Hall, "to a patient affected with the mildest form of mania. There was merely an erroneous idea about his affairs, and a degree of suspicion. The symptoms subsided, and he appeared recovering. A return of symptoms took place, and now there was for several weeks, violent mania. The patient again recovered, but we were again doomed to be disappointed; he became affected with a sort of amentia, and we suspected effusion. This idea was rendered untenable by a third speedy amendment. The patient again became worse; and now I made the most minute enquiries for some sign of paroxysmal seizure. I found that in walking in the drawing-room, he had experienced a 'shudder.' At length a fourth relapse took place, in the form of a distinct convulsive seizure, followed by a transient paralysis of the lips and of the arm, and still greater amentia than before. This seizure was followed by another, and this by another. The case had plainly been one of hidden seizure. And thus a flood of light was thrown upon one of the most obscure of obscure diseases."

It is to be regretted that Dr. Marshall Hall has given no further account of this patient, but the symptoms clearly point to paralytic insanity, or else to insanity following epilepsy, or insanity in which epilepsy had supervened. The question may be asked as to the difference between the "fits" in epileptic and paralytic insanity, and it may be

one of great importance as bearing upon the treatment, and, as I shall presently mention, upon the probable duration of the patient's life. I do not think that, practically, there is much danger of their being mistaken for each other; still, the resemblance between them in the early stages of general paralysis is great, as their epileptoid character is then very marked. The points of difference, as far as the fit itself is concerned, are, first, the absence of the *aura*, so characteristic of epilepsy. The tongue, too, is seldom wounded in paralytic insanity, and the tendency to sleep after an epileptic fit, is very different from the entire stupor that often follows the fit in general paralysis; the spinal system again is more generally affected in the former, than in the latter form of disease. The convulsions in epilepsy are more universal; in paralysis, the arm or leg is affected as a general rule, only on one side, although this is not constant; but the principal pathognomonic difference appears to be the relation that is found to exist between the mental symptoms and the "fits"; slight epileptic seizures occur for years without materially damaging the intellectual faculties, but in a patient affected with "fits" in combination with paralysis, each seizure, however slight, is generally followed by an exacerbation of the mental derangement, which, from the first, is out of proportion to the amount of disorganization indicated by the "fits" alone.

Epileptic fits usually attack childhood or early life; general paralysis is a disease of middle age; epilepsy is common to both sexes; general paralysis more frequently attacks men than women. The nervo-sanguineous temperament, and well-shaped head of the paralytic, contrast strongly with the frequently mal-formed cranium, and scrofulous diathesis of the epileptic; and the peculiar cry of epilepsy that so mournfully preludes the convulsion, has no parallel in the seizure of general paralysis. Interesting as this question is, its consideration belongs rather to the diagnosis of epilepsy, than to the subject of this essay. And, however much the "fits" of the two diseases may resemble each other, on other points their difference is unmistakeable.

There is one characteristic feature in these fits, that, perhaps, belongs rather to the mental than the physical division of the symptoms of paralytic insanity, but that I may mention here. In epilepsy, the existence of these paroxysms of convulsion is recognized by the patient, and their invasion is anticipated and dreaded; I have never seen a paralytic

patient who seemed conscious of them, or who feared their recurrence. It would appear that the intra cranial mischief, that these "fits" indicate, is so great as to render the patient happily unconscious of its approach, and heedless of the result its fatal march forebodes.

However easy may be the diagnosis between the epileptic and paralytic seizure, when occurring in a case with whose history the physician is acquainted, it is by no means easy to determine what the nature and probable result of a seizure may be, supposing that it is the first-noticed symptom of the malady, as, indeed, it would appear very frequently to be. Congestion of the brain with convulsion may occur in the course of an attack of delirium tremens, and closely simulate general paralysis; slight apopletic seizure, with resulting paralysis affecting the tongue, may render the diagnosis doubtful, and the prognosis, therefore, more hopeful. Important, therefore, as the study of the nature of these seizures may be, a fit is only one link in the chain of evidence, as to the nature of the disease, and must not be taken at more than its true value. A second or third attack must be watched before a confident opinion can be given as to their exact nature.

There is a common error that appears to me to still cling to the consideration of these paroxysmal seizures, and to cloud their diagnostic importance. It is too often believed and asserted that convulsions specially indicate disease affecting directly the medulla oblongata, or the spinal chord. It is true that they often do, and we see examples of such maladies in the convulsions of teething, and in the various forms of eccentric epilepsy; but the phenomena I have attempted to describe, are very different from these attacks, and are still more separated from the purely spinal symptoms which accompany death from hanging, or follow accidental injury to the chord. I must recur to this subject when entering upon the pathology of paralytic insanity.

The diagnosis of one of these fits from apoplexy, I mean absolute effusion of blood upon the brain, I need only allude to, the symptoms of an apopletic seizure being too marked to be easily mistaken for anything else. I may mention, as practical hints, that in the insensibility of general paralysis, there is not usually stertorous breathing, nor that peculiar puffing of the cheeks in expiration which marks palsy of the buccinator muscles, so frequent in apoplexy; moreover, the paralyzed limbs are *rigid* as a rule in general paralysis, and often in violent action; the reverse of this

rule obtaining in cases of blood being suddenly poured out upon or into the brain tissue.

Blood poisoning, especially that from disease of the kidney, will produce fits very similar to those I have described. Of course the diagnosis will be easy, even if the appearance of the patient and his previous history is not sufficient; chemical tests will at once demonstrate the true nature of the disorder, and in these cases an examination for the presence of albumen in the urine, should always be made.

Irregular dilatation of the pupils of the eyes is a symptom upon which M. Baillarger lays great stress: he states that a very large proportion of the patients attacked with general paralysis, who have come under his observation, have had the pupil of one of their eyes distinctly larger than the other. M. Baillarger, in his paper on the subject, which is published in the *Annales Médico-Psychologique*, gives the exact number of cases in which he has found this morbid appearance, more, I think, than two thirds of the whole, but I regret I am not able to refer to the article itself. Guislain, who notices M. Baillarger's remarks, will not admit this dilatation of the pupil to be a pathognomonic symptom of general paralysis; and in this view Dr. Bucknill concurs. I have not paid a sufficiently particular attention to this change in the eyes, to be able to give a very positive opinion, but I confess that I think M. Baillarger's statistical statement deserves more attention than it has received. There can be no question that a dilated pupil in one eye only is not uncommon in other forms of cerebral disease, but we cannot doubt the accuracy of so acute an observer as M. Baillarger, and I have myself remarked the existence of this symptom in several cases of paralytic insanity, and if it can be shown to be a frequent concomitant of this affection, it becomes a link in the chain of evidence that should not be neglected. I remember in the case of a patient in a very early stage of the malady, Dr. Sutherland pointed out this symptom to a well-known surgeon, whom he and I met in consultation, as a corroboration of our views as to the specific nature of the disease, and its probable termination. Our diagnosis was not very favourably received, and, indeed, the case was not an easy one to decide; we had no doubt that this symptom, taken in conjunction with others, was the very one that M. Baillarger describes; but as the gentleman, whose case we were considering, had been thrown from his carriage a few days previously, fracturing the bone

of his shoulder, and perhaps injuring his head, we were constrained to admit that the dilated pupil and other symptoms *might* be the result of the direct violence. The progress of the disease in this case has since proved the correctness of our original diagnosis.

Whatever may be the nature of the cerebral lesion indicated by this irregular dilatation of the pupils, there can be no question that when present in general paralysis, it is a symptom of the gravest import, and in those cases in which I have observed it, the disease has always been more than usually severe and rapid in its progress. I am, of course, aware that the pupil of one eye may be dilated from mere inequality of the circulation in the brain; and I know at this moment a patient in whom this symptom may be noticed after the exhibition of morphia, again disappearing as the sedative effect of the medicine ceases. In the early stage of paralytic insanity, as a general rule, the pupils of both eyes are dilated, the intelligible result of the congestion about the brain. In the later stages they are almost invariably dilated, but occasionally contracted, seldom irregular. Their dilatation at the close of the disease, would appear to depend upon the diminution of reflex nervous power, which is then so characteristic of general paralysis. I do not know whether M. Baillarger offers any explanation of this dilatation of the pupil of one eye only in the outset of the malady, but in those cases in which I have seen it, the symptom did not appear so much to depend upon either pupil becoming separately enlarged, as upon one of them absolutely contracting, probably from very slight irritation affecting the third nerve. If this be so, it becomes most important as a delicate and important indication of intracranial disorganization, directly affecting the base of the brain. This view is strengthened by the fact, that convulsive action of the muscles of the eye is common in paralytic insanity, and one may be permanently distorted, strabismus occurring from an exaggerated degree of the same irritation at the origin of the nerve.

A very curious, and as yet unexplained, phenomenon in the progress of these cases of paralysis has been pointed out by Dr. Bucknill. "In many patients," he says, "in spite of the immobility of all the other muscles, there may be noticed a peculiar grinding of the teeth, those of the lower jaw are rubbed against the upper molars, with such force as to produce a noise audible across the room," a sound which Dr. Bucknill aptly compares to that of the corn-crake; examination of the

teeth will sometimes show that their crowns are absolutely worn away by the constant attrition. It would be easy to make a plausible theory to account for this peculiar symptom, but it is practically more useful to simply record it, in the hope that a number of such facts may tend to throw some light on the pathology of this terrible disease. In two cases I have noticed an intermission of the pulse in the early stage of paralytic insanity, as if the innervation of the heart were affected; the twentieth or twenty-first beat intermitting; in one of these two cases, the malady has declared itself in all its intensity, in the other it is still only threatening to approach.

Headache is mentioned by Guislain as an early symptom of paralytic insanity. I have never heard such a complaint at any time from a patient suffering under this malady; indeed, the absence of any recognition of pain or uneasiness is remarkable. It is important, however, to remember, that a sensation of pain in the head may herald these attacks, as well as those of apoplexy and epilepsy.

The most important of all the physical symptoms that mark paralytic insanity, is the peculiar failure of muscular power that attends its progress, and that has given to it a name, which, as I believe, has been the fruitfui source of so many erroneous ideas as to the seat and nature of the malady. Before entering upon the consideration of the special form of paralysis that is seen in this disease, it will be well to make a few observations upon that "general paralysis," which is not accompanied by mental derangement, at least until the last hours of life, and which therefore is not under the exclusive treatment of physicians conversant with mental affections.

The systematic writers and lecturers upon the practice of medicine, naturally pay great attention to forms of disease so terrible and fatal as those of which paralysis is a symptom. I need not enter upon the classification, the symptoms, the causes, the morbid anatomy of apoplexy, which are familiar to every ardent student of our art. General paralysis, in their meaning of the term, which is, in fact, the proper one, is thus described: "If the disease is of greater extent than is implied in either of the terms hemiplegia or paraplegia, in that case it receives the name of general paralysis. It may be either sudden or gradual, if the latter it begins in the toes or fingers, and thence extends over the whole body." Again, "general palsy may be viewed as a more extended form of paraplegia." Dr. Copland concludes his account of general paralysis, by the distinct declaration, "sensation and intellectual power are unaffected in general palsy, as well as in paraplegia, and

continue so till the malady terminates" in fatal congestion of the brain or lungs.

A surgeon, attached to one of our large hospitals, told me that he had had recently under his care, a patient in whom gradually the entire muscular power was lost. An analogous case is given by Dr. Watson, and a third by Dr. Abercrombie. All three cases were examples of intra-cranial disease.

It is impossible, therefore, to doubt that general paralysis may exist, at least till within a short period before dissolution, without any symptom of mental derangement. Lead or other poisoning may induce entire and fatal paralysis, and yet leave the intellect perfect. I will carry the supposition still further, and imagine a case, in which all the symptoms are such as I have already described, and the progress of the paralysis precisely that which I am now about to detail; I am moreover willing to accept the explanation given by M. Pinel, as to my ignorance of these cases, which is, "that for obvious reasons they are not found in asylums," and that I have not seen them, because they do not belong to my department of medicine. I might, indeed, answer this, by observing that I and other alienist physicians are not so unacquainted with paraplegia and other forms of paralysis; but the point is not worth disputing. M. Pinel tells us that a general paralysis frequently exists without delusion; which we do not recognize, because it does not come under our observation, but this will not alter the fact, that general paralysis exists *with* delusion, is to be seen every day, is the most fatal form of insanity, and in its early, and perhaps solely curable stage, is still absolutely unknown to the great mass of the medical profession. It would be absurd to lay down any axiom upon this subject, but I feel that I am pursuing, however imperfectly, the right path, in attempting to prove that there is a peculiar and easily recognized form of paralysis, which is only one of the symptoms of an organic brain disease, which is accompanied by derangement of the intellectual or moral faculties, rendering the patient unable to manage himself or his affairs, and from its very commencement irresponsible for his actions, and incapable of reasoning or acting correctly in many important relations of life.

I propose next to consider the progress of the paralysis, and its mode of invasion in particular muscles; the first symptom of the disease usually appearing in those that move the tongue.

(To be Continued.)

https://doi.org/10.1192/bjp.6.31.79 Published online by Cambridge University Press