had declared shortly before his death that life was a burden to him, and some years ago had actually attempted suicide by cutting his throat.

How was the hammer of the discharged barrel at full-cock? The lock was fairly stiff, and when tested there was absolutely no springing back. To me only two alternative explanations suggest themselves:—

Either, (1), the suicide, after cocking the gun, fired it by means of a match or fuse applied to the "nipple;" *or* (2), he did so by the ordinary means of a percussion-cap, pulling the trigger with his right hand, while with the left he closely applied the muzzles to his head.

In the latter case the position of the hammer and absence of percussion-cap can only be accounted for by the charge—from the number of pellets found, an exceptionally heavy one—having partly forced its way out at the back, blown off the cap, and raised the hammer to full-cock.

We made a very careful search for any trace of a match or fuse which might have been used, but could find nothing, nor was there even a box of ordinary lucifer matches to be found in the room. On the other hand, we were equally unsuccessful in our search for a used percussion-cap. We, however, found powder-flask, shot-bag, and a box of unused percussion-caps in an open chest, quite near the surface. The shot in the bag corresponded in size with the pellets we found mixed with the brain substance and buried in the rafters.

The Procurator-fiscal accepted "suicide" as the cause of death.

If I have succeeded in presenting the facts of the case sufficiently clearly, expressions of opinion as to the probable cause of the condition in which the gun was found would be much valued by me.

VII.—SOME NOTES ON "HYSTERIA," WITH SPECIAL REFERENCE TO "HYSTERIA" IN THE MALE, AND ITS CONNEXION WITH SPECIFIC ORGANIC DISEASE OF THE NERVOUS SYSTEM.

By A. Stodart Walker, M.B.

Manifestations symptomatic of purely functional affection of the nervous system, and generally termed "hysteria," have long been recognised and studied in the male subject, and although, as Dr Mitchell Clarke tells us, Louyer Villermay, in a paper entitled "Traité des maladies nerveuses ou vapeurs et particulièrement de l'hystérie et de l'hypochondrie," published as late as 1816, denied the existence of male hysteria, yet as far back as 1618 Charles Lepois had recognised and treated of hysteria in children and in men. Since that time, amongst Continental

writers, Charcot, Briquet, Pitres, Betault, De la Tourette, Bitot, Souques, Chauffaud, Guinon, and Janet, amongst others, have investigated, classified, and published much upon the subject. An able summary of the question has been made by Dr Mitchell Clarke, whose exhaustive paper in *Brain*, Part iv., 1892, should be read by all interested in the subject.

Little or no attempt has, however, been made in this country to organize any collective investigation on this subject, and although hysteria (so-called) in women is a question of daily recognition in every large hospital in Great Britain, yet it may safely be said that the recognition of male hysteria is a matter of very rare occurrence. The statement of Charcot, that there is one case of male hysteria for every three of female hysteria to be found at the Salpêtrière Hospital, would in no case, I believe, coincide with the experience of physicians in this country. Here I take no notice whatever of the question of the comparative prevalency of hysteria in the two countries, but simply refer to the apparent discrepancy in the comparative ratio of the two sexes. I have frequently heard Charcot deny the fact that hysteria is more common in France than in England, and it appears to me that that apparent discrepancy arises probably from the fact that the physicians of Great Britain and of France lie at two extremes,—those of Great Britain being slow to own the existence of hysteria, those of France being on the look-out for it and ready to recognise it on the smallest indication. No one who has any experience of nervous disease at all will deny that the recognition of hysteria is very often extremely difficult. How is it possible in many cases of recognised organic disease to eliminate the possibility of a purely hysterical taint? More particularly in Friedreich's disease (as shown by De la Tourette, Blocq, and Huet[1]) hysterical manifestations are very seldom absent. Hence the frequent heterogeneity of the symptoms in different cases of this disease. Also such diseases as tabes dorsalis, idiopathic muscular atrophy, syringomyelia (very markedly in my experience), are in a great many cases accompanied by symptoms which on post-mortem examination can only be explained on the "hysterical" hypothesis. In fact, I am prepared to follow up a hint of M. Guinon's, raised by Dr Mitchell Clarke, and say that in a great many cases, the "hysteria"—or, rather, the nervous condition or conditions called by that name—remains latent until some organic disease of the central nervous system "not only draws attention to it," as put by Mitchell Clarke, "but stimulates it into activity." Given the existence (according to Charcot) of the primary cause of hysteria, heredity—very marked in a patient suffering from symptoms pointing to central organic mischief, and it may be laid down as a fairly safe rule that it will be difficult to deny the existence of a taint of "hysteria" in any such case, whether it be demonstrated by anæsthesia, analgesia, hyperæs-

[1] *Cinq cas de mal de Friedreich Nouv Icon de la Salpêtrière*, 1888.

thesia, feelings of formications, or other subjective or objective phenomena. In fact, one could not help being impressed by the fact, in clinically studying the cases in the hospitals of the Salpêtrière and the National Hospital, Queen Square, London, and in looking up the notes of former patients in these hospitals, that in most of the cases there were symptoms recorded which could find no explanation from the recognised morbid conditions present in these cases. Are not many of these symptoms due to a functional condition set agoing by the presence of the recognised organic disease?

I have above, in using the word "hysteria," advisedly added "so-called," because of the almost insuperable difficulty of allowing oneself the possibility of either accepting or denying definitely the existence of a specific morbid affection called hysteria. Fagge calls it a real and distinct "disease," but in doing so I hardly think he would be prepared to own, that the whole of those heterogeneous symptoms (spoken loosely of by clinical observers as "hysterical," and extending on one extreme from the *grande hystérique* of Charcot, to the other extreme of the minor sensory and motor manifestations so common in the study of nervous disease) could be included in the same category. Hysteria in its narrow sense, as indicative of such clear manifestations as the *grande hystérique* just mentioned, may be as definite a disease as is acute chorea; but as applied generally as indicating certain functional affections of the nervous system, many of them bearing no relation whatever to each other, it can only be called a symptom in the same way as chorea is only a symptom of certain morbid conditions, for the most part undiagnosed during life. It seems to me that we are yet a far way off from clearly understanding what these functional neurotic conditions really mean and indicate. The heterogeneity of the types is so great that it seems hardly philosophical to doubt that many of them should never be regarded as belonging to the same category. There are theories which suit admirably certain of the more patent manifestations, but of the minor forms of what we have been accustomed to term "hysterical" manifestations, it seems almost impossible to make theories suit. It may be fairly simple to find a theoretical explanation of the before-named *grande hystérique*, but what of those minor conditions, the localized anæsthesia, analgesia, hyperæsthesia, hysterical amblyopia, and the like? The whole question has yet to be thoroughly worked out. We have to discover whether there is an entire absence of morbid change in the central nervous system or not. A "discharging" action of certain cells due to some "impression" may sound plausible enough; but can we be sure that there is not present in such "hysterical conditions" some definite change in the cells, perhaps allied to some of the changes that take place in the nervous systems of the insane. In few of the latter can we discover any definite histological change in the nervous system after death. May not an allied pro-

cess have been going on in the nervous systems of those who during life demonstrated the "hysterical" taint? Again, as is well known, the hysterical symptoms have their analogues in symptoms due to recognised organic changes. Weir Mitchell has said that in hysteria "the symptoms of real disease are painted on an hysterical background." On the other hand, Buzzard has impressed upon us the opposite consideration, namely, that of "organic disease simulating hysteria." I myself, during the past twelve months, have seen four definite cases of disseminated sclerosis, each of which gave a history of having in an earlier stage of their career been diagnosed and treated as hysterics, and by neurologists of note. I saw a case three years ago in London presenting in an absolutely typical manner the symptoms of the *grand hystérique*, accompanied by amblyopia and localized patches of anæsthesia. This patient was treated as suffering from "functional" disease for two years. At the end of that time she developed all the symptoms of disseminated sclerosis, and died shortly afterwards, and on post-mortem examination marked scleroses were discovered, and judging from their histological character they appeared to be of comparatively recent development.

Does not this suggest to us that there may be always in the nervous systems of those who manifest what are called "hysterical" conditions some minute change taking place, which might ultimately lead, in *certain* patients, to definite naked-eye morbid change. That it does not in a large number of cases, history of course relates, but may it not in a minority of cases? This refers, of course, to the definite naked-eye morbid changes, and does not disturb the theory that there is some definite change in the minute cells allied to that which may take place in the insane.

But the main object of my paper is not to refer to this point particularly, but to refer to the co-existence of what is termed hysteria in certain organic diseases of the nervous system due to various causes, and especially due to specific disease. Gowers[1] has said truly,—"The effect of disease of one part is often to disturb the functions of other parts, and of such disturbance hysterical symptoms are a frequent result. There is hardly a single disease of the nervous system of which such symptoms may not be evoked in predisposed subjects. Cerebral tumours, tubercular meningitis, multiple neuritis, chorea, often cause conspicuous hysterical phenomena."[2] And this fact suggests to us another enormous difficulty, which must inevitably be thrown in the way of the clinician. Is such and such a symptom due primarily to the recognised morbid condition in such and such a disease, or is it a secondary "disturbance of function," either due to the primary morbid lesion or independent of it? May not many of the anomalous symptoms which

[1] *Diseases of the Nervous System*, vol. ii. p. 988.

[2] See also Ferrier's *Localisation of Cerebral Disease*, page 2.

are described from time to time by physicians as occurring in certain diseases be due to the superadding of some "disturbance of function —dependent or independent?" May this not account for so much of the discrepancy between different clinical experiences? Of course the inter-dependence and the co-existence of disease is always a difficult question, but it seems to me that the co-existence of even two possible organic conditions is often slow to be recognised by some neurologists. What the "disturbance of function" really is I am not, of course, prepared to say; we can only use the expression arbitrarily as we use the terms chorea and hysteria arbitrarily, and terms which will also remain a sign of our ignorance, —but nevertheless we all are agreed that such a condition is present in organic disease, and, as I think, in all organic disease of the nervous system. We have certainly present, to use the term of Janet[1] and Morel, "une maladie de dégénérescence." Whether this "maladie de dégénérescence" was present and latent in the body until the paralysis, contraction, etc., due to the organic disease drew attention to it, or whether it is caused by the organic disease, it would be difficult in a great many cases to say. It is noticed that in some cases the development of hysteria comes immediately on the declaration of the organic disease, and in some cases some time after, and in the case of syphilis of the nervous system, upon cases of which I now particularly wish to dwell, the hysterical manifestations may persist after the organic trouble has been apparently cured, or the hysterical symptoms may not appear till after the disappearance of the organic trouble. Syphilis as a cause of hysteria without any apparent organic changes in the nervous system has also been described; therefore, adopting a classification, we have,—

(1.) Hysterical symptoms due to syphilis occurring without any symptoms pointing to any gross organic disease.
(2.) Hysterical symptoms occurring synchronously with the appearance of the symptoms due to recognised organic disease, and disappearing on the subsidence of the disease.
(3.) Hysterical symptoms occurring synchronously with the appearance of the symptoms due to recognised organic disease, but persisting after the subsidence of the disease, or persisting in a modified fashion.
(4.) Hysterical symptoms persisting with the marked effects of the organic disease.
(5.) Hysterical symptoms appearing late in the progress of the disease, and (*a*) either persisting, or (*b*) disappearing, or (*c*) being modified with the subsidence of the organic disease.
(6.) Hysterical symptoms appearing after the apparent disappearance of the organic disease.

With regard to the persistence of hysterical manifestations after

[1] *Archives de Neurologie*, vol. xxvi., No. 77.

the apparent cure of the disease, it would be hard to give the pathology in any particular case. In one case it may be due to some distinct morbid change in the central nervous system, while in another case it may be due to a habit or an auto-suggestion. I commenced this paper by special reference to male hysteria, and I did this advisedly (although most of my remarks would apply to "hysteria" as manifested in both sexes), because it has been recognised—more particularly by Charcot and Pitres—that the male is more liable to hysteria produced by poisons than the female, and of the cases which I have of hysteria in the syphilitic subject, only one is in a female subject. The cause of this is hard to explain.[1] As to hysteria, of course the prevalence in the female sex is notorious. This is marked, if we accept Charcot's one to three; but Briquet's one to twenty-five would, I think, approach nearer to the experience of British physicians.

Let us now examine, under the headings I have given above, some typical cases. It may interest those who have paid attention to the etiology and development of syphilis that in all my cases, with the exception of the first, the secondary symptoms of the disease were almost *nil*. This coincides with the accepted view, that the absence of well-marked "secondaries" is generally accompanied by well-marked "tertiaries," and these often affecting the nervous system.

(1.) "Hysterical" symptoms (in the male) *following* syphilis, without any symptoms pointing to any gross organic disease of the nervous system.

The word "following" must be noted, for I do not propose to note here at all the hysterical manifestations which may occur in the secondary stage of syphilis. These cases are fairly numerous. The following case occurred after the tertiary stage of the disease:—

CASE I.—J. M., æt. 26,[2] a fisherman, contracted syphilis at the age of 20; had a mild primary stage, with very marked secondary symptoms; sore throat and falling-out of the hair. He had a marked neurotic history, his father having died of general paralysis of the insane, and his mother had in her younger days been subject to fits, which were of an epileptiform nature. Patient himself had up to the time of his contraction of the specific disease been a particularly strong man, and although naturally exposed to much hardship in the pursuit of his calling, he had never suffered

[1] The absence of any attempt at statistics in any of the books on syphilis upon which I could lay my hand (including Mr Hutchison's excellent work), prevent me from knowing definitely the ratio of prevalence of the disease in the two sexes.

[2] An important year in the history of the development of hysteria; a time of life graphically described by Janet as the "puberté morale."

from any organic disease, nor could any facts be obtained pointing to any remote manifestations up to the time when I saw him. He was carefully treated during all the stages of his disease. He took mercury and iodide of potassium fairly regularly for two years, and at the end of that time all traces of the disease seem to have vanished. Two years after this, however, he became subject to peculiar hysterical attacks. If talking, he would suddenly stop speaking and utter a strange cry; lights flashed before his eyes, and the "globus hystericus" rose in his throat. He then fell on the floor, and kicked and struggled about in a violent fashion. There was no unconsciousness, no foaming at the mouth, no biting of the tongue, no change in the pupils, no oscillations or abnormal movement of the eyeball, and no involuntary passing of urine or fæces. Patient never hurt himself seriously. Patient had as many as ten of these fits in the day, but never any during the night. From being a particularly cheerful, bright man, he became morose and suspicious.

I happened to be staying in the district where the patient lived, and the medical man who had been the family doctor having just left the district, I saw the case. He had been treated with bromide of potassium taken alternately with iodide of potassium, with no seeming improvement, followed by a tonic treatment of strychnine and iron. These methods having been tried for a considerable period, hypnotic suggestion occurred to me; but I was loth to use it, having just returned from working at the Salpêtrière in Paris, and remembering that attempts at hypnoses are often some of the principal causes of hysteria. However, believing with Guinon that "hypnosis should never be resorted to except in cases where the neurosis is present in so severe a form that there is no risk of making the patient worse," and remembering the success of the case which I published in the first volume of the *Edinburgh Hospital Reports*, I consented to try, fortunately with the best results. Patient readily responded to the suggestion, and since coming out of the hypnotic state he has never had another fit, and has returned to his work apparently in a remarkably satisfactory state of health.

With regard to this case, important in the rarity of the type, I took every precaution to assure myself of the non-existence of other nervous symptoms. I could discover no other cause of the fits, no history of shock, or trace of peripheral irritation. Of course, it would be impossible to state *absolutely* that these fits had reference to the syphilitic poison; but the time when the fits came on—about five years after the initial lesion—and the absence of any other possible cause, made me believe that the syphilis and the fits stood in the close relation of cause and effect. Were I asked to give a prognosis in such a case as this, I would not be inclined to give a very favourable one, unless a careful therapeusis was kept agoing. The man's hereditary history, and the presence

of such a personal hysterical taint, induced by the syphilis or not, will probably point to more neurotic developments in the future.

(2.) "Hysterical" symptoms occurring synchronously with the appearance of the symptoms due to recognised organic disease, and disappearing after the subsidence of the disease.

CASE II.—Mr G. A., æt. 30, in 1887 contracted a primary sore, followed by very slight secondary eruption. There was no sore throat, no falling-out of the hair, or other secondary manifestations. He put himself upon mercury and iodide of potassium for three months, at the end of which time the symptoms of the disease seem to have disappeared, and he stopped the medicine. Everything went well with him physically till spring 1892, when he began to complain of very severe pain at the back of the head, tenderness of the scalp over the occipital region, and a slight giddiness. These symptoms were followed in a few days by gradual loss of power in the right arm and leg and slightly in the left arm. His medical man at the time immediately put him upon large doses of mercury and iodide. From the notes taken at this time I find that not only was there marked paralysis of the right arm and leg and slightly of the left arm, double optic neuritis, and vomiting, but there were, unequally scattered over the left leg, circular patches of anæsthesia and analgesia. There were also well-marked localized patches of hyperæsthesia over the pectoral muscle on the left side, and a fortnight after the paralytic symptoms appeared patient had a fit, which is described in the notes as epileptiform (marked globus hystericus, etc.). When I saw the patient in October 1892 he had made a remarkable recovery. The double optic neuritis had completely disappeared; power was nearly complete and equal on both sides; there had been no more fits. What remained was a slight increase of the knee-jerk on the right side, and a slight amount of giddiness on standing with the eyes closed; and over the left buttock there was a single patch of anæsthesia, and over the left pectoral muscle a small patch of hyperæsthesia. I saw him again in March 1893, just about to leave for South Africa. He was then apparently in perfect health,—still, however, taking small doses of iodide and having the mercury inunction. The giddiness had disappeared, the knee-jerks were normal, and the anæsthesia and hyperæsthesia had simultaneously disappeared. I omitted to state that there was a markedly neurotic history to be obtained: not only had his mother been subject to hysterical attacks when young, but he himself had a history of chorea lasting for two years.

(3.) "Hysterical" symptoms occurring synchronously with the appearance of the symptoms due to recognised organic disease, but persisting after the subsidence of the active disease, or persisting in a modified form.

CASE III.—J. M., æt. 27, a Frenchman resident in Paris, a waiter, contracted a primary sore eight years ago. According to his own account he had been perfectly well up to the time of this infection. There was a history of epilepsy in the family, and patient himself said that he suffered much with "convulsions" in his infancy. There was a very mild secondary stage, but about four and a half years after the primary infection he was suddenly taken with fits of a one-sided nature—right-sided, with very marked occipital headache. He was treated with the ordinary antisyphilitic remedies, combined with the bromides. At the same time as the fits came on he had well-marked patches of anæsthesia in the left leg and arm, which seemed to have varied at each clinical examination. He made an excellent recovery; there was no paralysis, the headaches disappeared, and when I saw him in April 1893 he was in good health, with the exception of the persistence of the patches of anæsthesia and hyperæsthesia above mentioned. I made a careful examination of the patient. He was evidently of a marked neurotic type. He said he had had no fits for twelve months and no headache. On examination I could make out no marked changes in the superficial or deep reflexes, no optic neuritis, no change in any of the special senses, but over the front of the left thigh and over the deltoid of the left side there were marked patches of anæsthesia. On a second examination the position of these patches had varied a little, and had extended. Since I left Paris patient has left the hotel where he was formerly employed, and I have not been able to trace his whereabouts, to discover if any further change or complication has taken place.

(4.) "Hysterical" symptoms persisting with the marked effects of the organic disease.

CASE IV.—J. M., æt. 48, a labourer, was admitted into Ward 22 of the Royal Infirmary in July 1892, complaining of paralysis of the right side of the face and slightly of right arm, accompanied by severe pain. Patient had a primary sore five years ago, with mild secondary symptoms, and was treated with mercury and iodide for two months. He was in fairly good health until July 8th, when on awakening in the morning patient found he could not lift his arm, and that his arm and face were very painful; he was not unconscious.

On examination the following was made out:—*In the Nervous System: Sensory*—(1), Loss of sensation in thumb and two fingers (at tips) on both sides; (2), entire loss of sensation in right arm, right side of face, right side of tongue, right conjunctiva, and on the inner side of both feet. *Motor*—Slight loss of power in the right arm.

Eyes.—Sight nearly *nil* in the right eye. Paralysis of internal

rectus, superior oblique and inferior oblique of right eye, marked dilatation of right pupil, with all reflexes lost.

Face completely paralyzed on right side; face drawn to healthy side.

Smell and taste lost on right side. Skin reflexes and deep reflexes all absent on right side.

Patient was put on antisyphilitic remedies for three months, with little or no result. The anæsthetic area in the feet and fingers varied, however, in a remarkable fashion,—some days being completely absent, some days well marked and extensive, and other days small and well localized.

Patient left the hospital improved only in the sense that the pain he complained of had disappeared. Otherwise his condition was much the same as when he came in.

This case suggests to us the consideration whether we are dealing here with a type of malingerer rather than with a type of hysteric; but I think it would be almost impossible in such a case to state definitely what was the accompanying condition. "Patches of anæsthesia" are not, generally, favourites of the malingerer. Such conditions are often accompanied by thorough clinical testing, in the way of pins and hot irons and severe electrical applications. Besides, where can we draw the line of demarcation between hysteria and malingering? and, now that the word neurasthenia has been added to our vocabulary, between hysteria, neurasthenia, and malingering?

(5.) Hysterical symptoms appearing late in the progress of the disease, and either (*a*) persisting, (*b*) being modified, or (*c*) disappearing with the subsidence of the symptoms due to the organic disease.

I have no full notes of any cases under this category, but I saw a case at the Salpêtrière of a young man who was being treated for facial paralysis, diagnosed as due to syphilis, who commenced to have hysterical seizures three months after the appearance of the facial paralysis, and which were still going on after the facial paralysis was nearly cured. Hypnosis failed in this case.

I saw another case, where a patient who was being treated for hemiplegia, the result of a syphilitic gumma, develop late in the progress of the disease a contraction of the field of vision, which passed off in a few days. The optic neuritis from which he had been suffering had nearly disappeared.

(6.) Hysterical symptoms appearing after the apparent disappearance of the organic disease.

Under this heading I would include the case of a man, A. S., æt. 36, a miner, who was admitted into Ward 22 of the Royal Infirmary, and the details of whose case I published in the first volume of the *Hospital Reports*. At the time of the publication I

said: "There was no *very definite* specific history to be obtained," but from what I noticed at the time, and from what I have heard since, I think there can be no doubt left as to the specific history. This patient complained of remarkable jerking movements of the whole body, so powerful at times as to nearly throw him out of bed. There were present also certain peculiar cerebral and general sensory disturbances. This patient's symptoms completely passed away after one hypnosis.[1] (See vol. i. *Hospital Reports*, page 420.)

In considering these several cases, it would, of course, be difficult to say where the symptoms due to organic disease ended and the "functional" symptoms began. As I have said before, we have yet to learn the real significance of these "functional" conditions. Certainly I would be prepared to believe that there exists in all these cases the "tendency" (to use a familiar expression in biological science) to nervous disease, an extreme susceptibility to a functional disturbance, whether caused by the ordinary or extra-ordinary environment of the individual, or caused by disease in the central nervous system or its opposed structures. Purely on theory, and empirically from recorded cases, we might attempt a classification on these lines:—

(1.) Symptoms, though not necessary to, nor directly symptomatic of, organic disease, yet dependent on its existence.

(2.) Symptoms existing independent of any "organic" disease as diagnosed by our present methods, due to some (*a*) physical, (*b*) chemical, (*c*) or other change.

(3.) Symptoms due to a condition of habit or auto-suggestion, due to a previous organic condition or other environment.

To this classification it is easy to raise many objections; but I put it forward as purely arbitrary, as all such classifications in the present state of our knowledge must be.

In conclusion, I must again repeat the impression that the co-existence of hysteria and syphilis is a marked and definite one. Whether the particular recognition of the existence of these "hysterical" conditions in specific disease is accompanied by the fact that we are careless of recognising the same taint in all other organic nervous conditions, I am not prepared to say. Probably it is so; and I should be glad if this paper made us follow the example of the French physicians, and keep a sharper look-out for symptoms of an "hysterical" nature. Of course, in the outcome it only comes to be a question of purely clinical interest.[2]

[1] I am indebted to Sir T. Grainger Stewart for leave to publish this and Case No. IV.

[2] I make no apology for the slender way in which I have handled this subject. The paper does not profess to be a dissertation or a thesis. It is, as its title implies, only "Some Notes on Hysteria."