

**HYSTERO-TRAUMATIC PARALYSIS; CASES AND
COMMENTS**

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is said to have died in an asylum, from the effects of drink, when she was about sixty. The patient is one of a large family, all of whom died of phthisis under the age of twenty except two sisters and one brother. One of the sisters is strong and healthy; the other has always been delicate and suffers from nervousness and fainting attacks. The brother is a martyr to asthma.

Previous History of the Patient. - From the age of one year until she was fourteen the patient was an inmate of Lord Kinnaird's School in Westbourne Grove, and there she learned her lessons well but was said to be troublesome; she was delicate, childish, and mischievous; she did not care for play, and if she did play she got wild and excited. At the age of seven she began to menstruate; the discharge was scanty, it appeared every two weeks, and was frequently attended with pain and with syncopal attacks.

After leaving school she went into domestic service and remained in her first situation for eleven years. She was not mischievous, but took a great interest in gardening, carpentry, and man's work generally. Her health was fairly good during this time, but she continued subject to syncopal attacks at the periods, and on two occasions she was laid up, first with diphtheria, and next with

rheumatic fever. For the latter illness she went into St George's Hospital and she made a good recovery. While in St George's she lost her voice, but it returned under Faradism. Shortly afterwards she appears to have left her first situation, and she was never able to settle long in another.

In 1832, she entered Lambeth Infirmary owing to loss of power in the body and limbs. She was unable to turn herself in bed, nor could she feed herself, and the stomach-pump had to be employed. At times she lost consciousness, and during one such attack she was thought to be dead, and was, she states, laid out for burial (catalepsy). After being in the Lambeth institution for two years, she became unmanageable and was removed to Leavesden Asylum. Here she was kept for six weeks and again returned to Lambeth, being discharged from there in two weeks "cured".

In 1836, she went into Paddington Workhouse for trouble in her mouth, caused by cutting a third set of teeth. These had to be extracted under chloroform, and she states that this operation brought on attacks of convulsions with unconsciousness, that she occasionally bit her tongue in the attacks, and that she had to be tied in bed. Faradism did her good, and after six week's residence, she was discharged well, except that the left side of the body

remained cold, and she frequently lost all feeling in the left leg.

History of the Present Illness. - On October 22nd, 1887, she was frightened by a vicious dog, and, as she was menstruating at the time, her periodical syncopal attacks became worse than usual. Two days after the fright, she had one of these fainting attacks while cleaning the stairs, and she fell to the bottom, where she remained unconscious for more than an hour. On regaining her senses, the left side was "all gone" and stiff. She was taken to St Thomas's Hospital in a cab, and placed under the care of Dr Bristowe. The following is a condensed form of the notes then made as to her condition:-

General Appearance. - The patient is pale, fairly well nourished, and not obviously emotional. She complains of cramp-like pain in the back and stiffness of the left arm and leg.

Muscles. - The left arm is rigid and extended in a straight line. The fore-finger is extended and the thumb rests upon it, while the three ulnar fingers are firmly bent into the palm; the hand exactly resembles that used in printing to call attention to a note. Considerable power is required for passive movement but no pain is caused thereby. The left leg is somewhat rigid at the hip and knee, but the

ankle is freely movable. It is weaker than the right leg, but still has a fair amount of power.

Reflexes. - All the superficial reflexes are present. The knee jerks are exaggerated, but equal; there is no ankle clonus.

Common sensation. - On the left side, the trunk and limbs are quite anaesthetic and analgesic with the exception of the sole of the foot and the space between the costal margin and the pelvic rim. The conjunctiva of the left eye, and the soft palate and the pharynx on both sides, are sensitive, but the left half of the tongue and the mucous membrane of the left side of the mouth are anaesthetic.

Special Senses. - Smell and taste are lost on the left side, but present on the right. Hearing is not very acute, but is present on both sides. There is blindness, except to the perception of bright light, of the left eye and of the temporal half of the right eye. There is no disturbance of colour-vision. The pupils are rather small, but are equal and active.

Facial muscles. - There is no weakness in the muscles of the eye, face, or tongue.

The patient only remained in St Thomas's for three days and immediately after leaving she had an attack of fainting in the street, but re-

covered and went home in a cab to her situation, where she remained till May 26th, 1888. On this date she entered St Mary's Hospital, complaining of weakness and cramp of the left side. She was placed under the care of Dr Lees, and the following notes of her case were made:-

"The patient is somewhat dull and vacant in appearance, but is rational and answers questions. The left arm and the left leg are in a state of tonic contraction; the leg only became affected on the way to hospital. The superficial reflexes are good; the tâche cérébrale is easily obtained. The left knee-jerk is almost lost, while the right is much exaggerated.

"The right side is hyperaesthetic all over, pain being elicited by a tap of the finger. The left side is anaesthetic from head to foot and devoid of muscular sensibility.

"The special senses (smell, vision, taste and hearing) are all absent on the left side. Moreover, the right eye has a contracted white light field, with no field for green and practically none for red.

"There is a marked ovarian pain to pressure on the right side, and at the same time there is a feeling of a ball in the throat and

the left leg becomes flexed and painful."

The progress of the patient is not very particularly noted at St Mary's, but on June 1st, 1888, the following item appears:-

"The patient says that when her friends came to see her yesterday, the right side became anaesthetic for a short time and the right arm got contracted like the left, but that the contraction disappeared on the arm being rubbed. The other patients confirm her statement. The patient feels the prick of a pin this morning on the left hand and up the arm for three inches; also for an inch or two above the elbow. There is anaesthesia on the back of the right hand."

On June 13th, 1888, a further note appears:-

"A magnet was placed in the patient's bed by her left side; she went to sleep, and, during sleep, the anaesthesia shifted over to the right side, leaving the left side quite limp and sensitive. On the magnet being put on the left side it seems to draw the anaesthesia and contraction away from the right side and back to the left."

The date on which the patient was discharged is not given, but the result is put down as "relieved."

For three years after leaving St Mary's, the patient was at service, but from 1891 to 1893 she was an inmate for short periods of Middlesex Hospital, Marylebone Infirmary, and Cleveland St. Sick Asylum, suffering from weakness of the left side and occasional convulsive attacks. In May, 1894 she was married, and for a period of over a year from this date she had very good health, being free from attacks and troubled very little with stiffness. She has one child, which was born on March 4, 1895, and in the following October she had a miscarriage attended with considerable haemorrhage. During recovery, her child was snatched out of her arms; her left wrist was injured, and the stiffness has been worse since that time.

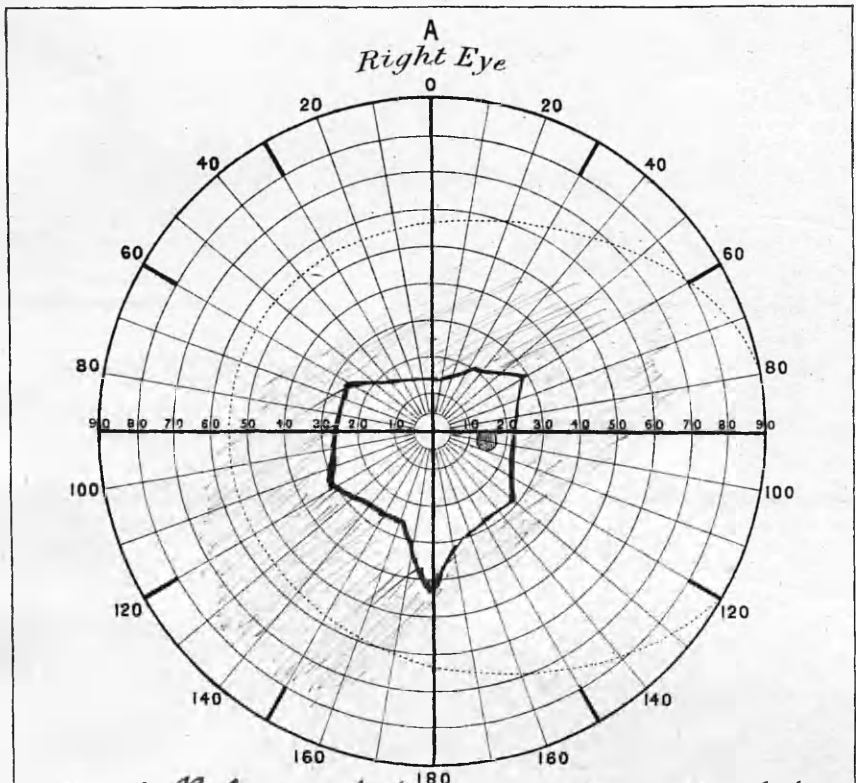
Present Condition (March 24, 1896). - There is stiffness and paresis of all the muscles of the left upper limb. The wrist and hand are extremely rigid; the thumb is opposed to the forefinger and both are extended; the 2nd, 3rd, and 4th fingers are semi-flexed. None of these joints can be moved. The elbow is also stiff and the shoulder somewhat so, but both these joints can be slowly put through their whole range of movement by means of passive motion. There is no appreciable stiffness of the muscles of the trunk, but there is marked stiffness of the left lower limb, and, although the patient

can walk, the gait is very difficult and the leg is dragged along, not circumducted. The stiffness is worse ~~than~~ in the knee and ankle than in the hip. There is no appreciable atrophy of the limbs; the left arm measures only 1 cm. less than the right; the upper arms are of equal circumference; the left leg and left thigh are each $\frac{1}{2}$ cm. less than the right ones. The dynamometer cannot be moved by the affected hand, but the right hand causes it to register 35 kilos. The knee-jerks are slightly plus, and are about the same on both sides.

With the exception of the conjunctiva, the upper lip and the side of the nose, there is anaesthesia, analgesia, and thermal anaesthesia of the whole of the left side, including the left half of the tongue, palate, and pharynx as far as the epiglottis. The last can be touched by the finger without causing any reflex action. The right side is normal all over to touch, pain, heat and cold.

The speech is good, and there is no facial paralysis. The ovarian phenomenon ("ovaric") is absent on both sides.

With regard to the special senses, all are inoperative on the left side, and no organic change can be detected in any of the organs. Mr Work Dodd examined the eyes and reports: "The fundi, muscles, and pupils of both eyes are normal. The left eye



Name *W^m Reynolds* Date *4.5.96*
Priestley Smiths Perimeter. *Curry & Paxton.*

is totally blind except to hand reflex. The right eye has a very contracted field of vision, but perfect central vision ($\frac{6}{9}$) with glass, and normal colour vision."

Treatment and progress. - The following mixture was prescribed on the patient's first visit, on March 17th, 1896, and was continued throughout:

R/
 Tinct. Valer. Ammon. \mathcal{Zi}
 Ammon. Brom. \mathcal{qss} \mathcal{I}
 Aquae Menth. Pip ad \mathcal{Zi} ter in die.

In conjunction with this, Lin. Saponis was ordered to be well rubbed into the affected limbs. On March 24th and 31st, no improvement was noted, and on April 7th the patient was found to be feeble and depressed, and the limbs were rather stiffer than before. This was due, she said, to the fact that she was menstruating. About this time we had an opportunity of seeing Dr Lloyd Tuckie make use of hypnotic suggestion and we determined to try its effect on our patient. On April 14th, Mr Dodd operated, having previously obtained the patient's consent. He placed her in a comfortable chair and directed her to look fixedly on a piece of cut crystal which he held in his hand; in a few minutes her eyes became heavy and gradually closed; her breathing then became prolonged, her head dropped

forward, and she had the appearance of being in a natural sleep. Mr Dodd then took the affected arm and, after stroking it, was able easily to overcome the rigidity, and to put the limb through passive movements; it soon became quite flaccid, all but the thumb which was felt to offer definite resistance. The patient separated the thumb and fore-finger on command, and also held the arm straight out from the body and in various other positions, according to direction. The patient was told that the stiffness would not reappear on awakening, and it did not do so for some time. She was easily roused by blowing in her face and telling her to wake up, but she remained, while under observation, slightly confused. She did not know where she had been, but expressed herself as grateful for the improvement in the arm and leg.

On April 21st, the patient stated (and her statement was confirmed by her husband) that the stiffness had remained away for several days, and that it had only gradually returned, but was not so extreme as it had been. On examination, it was found that she could walk better, could move the arm more freely, and could also slightly flex the wrist. The thumb, however, was apparently as rigid as before. Hypnotism was employed regularly each week after this by Dr Savill or me; no accidents

happened, and the condition of the patient gradually improved. The stiffness always persisted during the hypnotic sleep until passive motion was begun, and it may be here remarked that the husband stated that it also persisted during natural sleep.

On May 12th, the patient reported that three nights before (9th) she had gone to bed as usual, but, during the night, she wished to rise to her child, and was astonished to find that she could not do so because the right leg and right arm had become rigid. The left limbs had become quite flaccid and power had returned to them.

On examination, the right arm was found to be stiff from the elbow downwards; the fingers were semi-flexed, and the thumb pressed against the forefinger. The muscular sense was normal; there were no tremors, and the dynamometer registered R.0;L.35. The right leg was slightly stiff in walking, but the joints could be put through their whole range of movement. Both knee reflexes were slightly exaggerated. The tongue was straight and there was no facial paralysis. Sensation to touch was lost in both hands; it could be made out in the wrists and upwards, and in the body and legs. Analgesia was present in the thumbs and fingers of both hands but the prick of a pin was felt elsewhere. The face was insensible to touch except round the mouth;

it was sensitive to pain all over.

The patient continued to attend regularly once a week, and was hypnotised on each occasion. In June it was noted that she could walk perfectly, and that the only remaining stiffness was in the thumb and forefinger of the right hand. The anaesthesia was limited to the back of the same hand. On July 14th, she was noted to be "well", the anaesthesia and stiffness being quite gone.

At the end of September, a well-written note was received from the patient saying that she had remained perfectly well, and that she was able for all her household duties.

CASE II.

Charlotte Budd, aged nineteen, was brought to the West End Hospital on May 19th, 1896, complaining of weakness in her right limbs and severe fits.

Family History. - The family history is good; both parents are alive; and no nervous disease has affected any of her relatives.

Previous History of the Patient. - The patient was formerly a waitress in a hotel, and enjoyed good health until a year ago when she had a severe fainting attack in which she was unconscious for half an hour. The attack was attributed to overwork and was not repeated.

History of the Present Illness. - At the end of March the patient had her right ear syringed on account of a feeling of discomfort in that organ. The operation was done somewhat roughly and gave rise to a slight degree of haemorrhage from the meatus. The bleeding has continued ever since, and Dr Dundas Grant was consulted on that account. On his examination, it was discovered that the patient was deaf in the affected ear, but this had not previously been noticed. No scar or other organic change could be found to account for the haemorrhage or deafness, but Dr Grant was of opinion that there had probably been an abrasion of the meatus at the outset.

On April 21st, the patient began to have severe fits, which at first occurred every day; then every other day; then there was an interval of a week till the last one yesterday (May 18, 1896). The patient says that she suffers from giddiness immediately before the fits, and that she is quite unconscious during them. She suffers from headache and lassitude for some hours after the attacks. Her aunt states that the fit lasts about an hour during which time the patient struggles a great deal, and it takes four people to hold her; that she bends the body into all kinds of strange forms, and sometimes bites her tongue; that she clutches her right ear and screams "Don't cut it!" or talks of places where she has recently been. There has been weakness of the right upper and lower limbs since the first fit, and it has become worse after each succeeding attack.

Present Condition. - The patient was driven in a tradesman's cart to the hospital, and was assisted by two people into the out-patient room. In coming in it was noticed that she dragged the right leg in walking, and when she was asked to walk alone she immediately fell down. She can stand alone, but when the eyes are closed she sways about a great deal. The whole of the right lower limb is in a state of flaccid paresis, and the right upper limb

is in the same condition. The dynamometer in the right hand registers 5 kilos, and in the left registers 35 kilos. She is unable to distinguish variously weighted balls of the same size with the right hand, while with the left she can discriminate between them at once. Measurement of the affected limbs does not show any atrophy as compared with those on the other side.

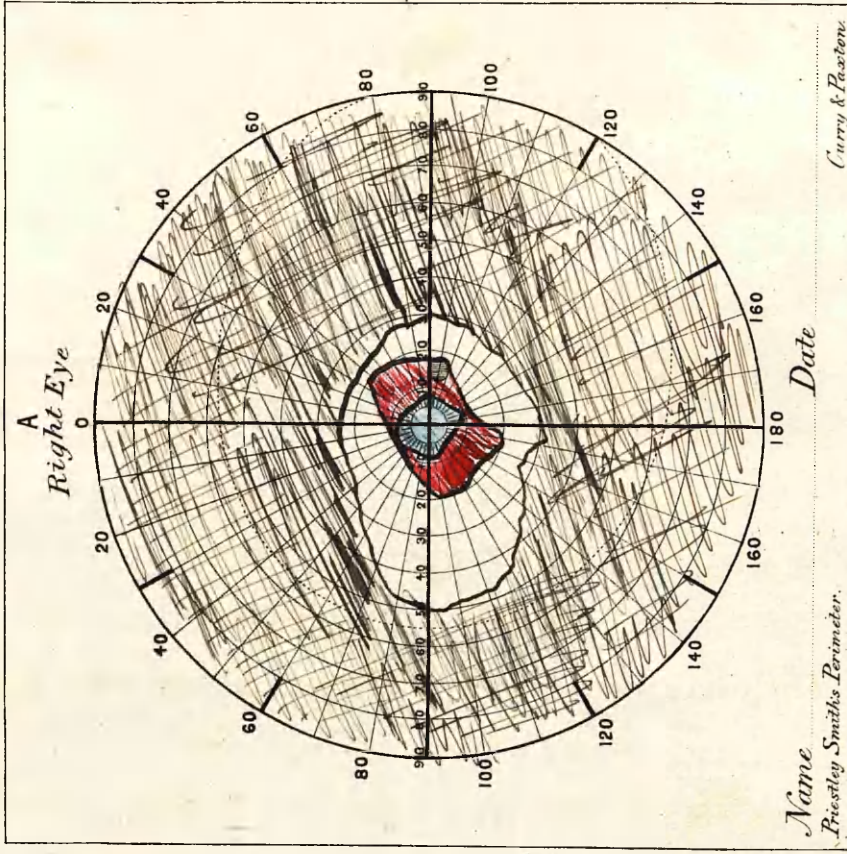
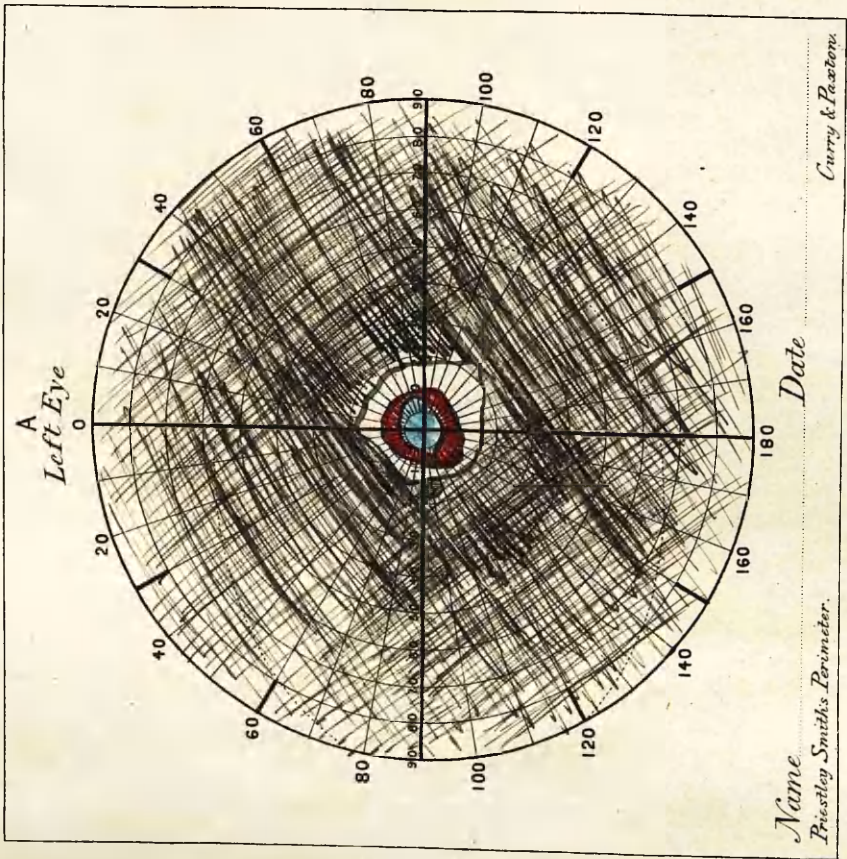
The patellar reflexes are slightly plus, but there is no ankle clonus.

There is no facial or ocular paralysis, and the tongue is protruded in a straight line.

Sensation to touch and to pain is diminished all down the right side, including the face; but the anaesthesia and analgesia are not absolute. She has difficulty in distinguishing heat from cold on the right side, while on the left side she recognises them at once.

The senses of taste and of smell are unaffected, but the patient states that she is unable to hear with the right ear. As previously mentioned, no abnormality can be found in the meatus, and the evidence of haemorrhage is derived from a small amount of blood clot on the lobule, and from the statements of the patient and her aunt.

The fundi, muscles, and pupils of the eyes are normal, but there is a slight degree of hypermetropia.



Moreover, there is retraction of the visual fields for all colours, and a disarrangement of these fields, the blue field being smaller than the red. These conditions are more marked in the left eye.

The patient is intelligent and not markedly emotional, but pressure on the left ovarian region causes pain, ascending to the throat, and a tendency to weeping. Menstruation is normal. She states that she has frequently headache in the occipital region, and that she suffers a great deal from constipation, but that there is no vomiting. She further states that she sometimes becomes breathless apart from exertion, and that she is frequently troubled with attacks of shivering alternating with flushing.

A careful examination of the chest and abdomen failed to produce any evidence of visceral disease. In regard to the causation of her condition, nothing can be discovered beyond the fact that her marriage had been postponed indefinitely to her great disappointment, and that soon afterwards her ear was injured, as has already been described.

Progress and Treatment. - The patient and her friends were given a good prognosis, and the former was told to use every endeavour to walk without assistance. She was put on a bromide and valerian

mixture and was directed to have the weak limbs shampooed night and morning. On her next visit (May 26th) she was half-carried as before, and on examination the paresis and hemi-anaesthesia were found to be markedly worse. There had been, however, no recurrence of the fits. On June 2nd, she reported that, a few nights before, the power had suddenly returned to the right leg, and she had been able to walk from one room to another without assistance, but that during the night the limb again became weak and had remained so. On June 9th, the patient stated that the right breast had become swollen and had been discharging blood at the nipple, at intervals, for four days. On examination, the right breast was found to be fuller than the left one, but there was no tension or induration and no blood could be expressed. At the next visit there was a further complaint, viz: spitting of blood, and no organic basis was found for the symptom. On June 30th, an examination was made of the patient's condition, and the only improvement found was the absence of anaesthesia from the face. The Faradic wire brush was employed with a moderate current, for a quarter of an hour, to the right arm and leg, and gave rise to a good deal of complaint from the patient. After its use the hemi-anaesthesia seemed less but the paresis persisted.

On September 8th, the patient presented herself in response to a post-card. She appeared to have been frightened away by the Faradism as she had not returned after its employment over two months before. She was very much better, and walked into the room alone. She stated that she could walk for over half a mile at a stretch, and that the arm was gaining in power as well as the leg. The improvement had only been noticeable about a month and appeared to be more or less coincident with an improvement in her matrimonial prospects. The dynamometer registered in the right hand 15 kilos; in the left 30 kilos. There was still right hemi-anaesthesia except on the face, but there was no longer any analgesia. The ear had ceased to bleed, as had also the breast and mouth. There had been no convulsive attacks.

DIAGNOSIS.

The diagnosis of hysterical affections, on account of the close similarity of many of their manifestations to the symptoms of various organic diseases, is often a matter of very great difficulty. In the foregoing cases, however, this difficulty did not obtain. In Case I. the patient has a family history and previous record, all pointing to hysteria. She is seen to have suffered from minor and major attacks, including catalepsy, and, in addition to these, to have suffered from hemi-anaesthesia and hemiplegia. Other hysterical stigmata were also well marked, viz: the ovarian phenomena, abolition of the pharyngeal reflex, and abolition of the functions of the special senses on the affected side with contracted field of vision in the eye of the opposite side.

It is impossible that one gross material lesion could have produced all her symptoms, and when the symptoms themselves are scrutinised they are seen to be, in many particulars, characteristic of hysteria. The hemi-anaesthesia involves the special senses on the same side, and is out of proportion in degree and extent to the accompanying hemiplegia, and it is not accompanied with optic neuritis or other sign of organic disease.

Again, the hemiplegia presents several characteristic features. Firstly, we note that it was sudden in its onset and accompanied with rigidity from the very beginning, and that the rigidity attained its maximum straight away. Had it not been functional, the rigidity would either have been a late symptom coming on gradually, or an early and, more or less, transient symptom, passing off for a time and returning after an interval in a more intense degree. The second point to note in regard to the hemiplegia is that there is no appreciable atrophy of the muscles, and that the electrical reaction is unchanged. Both of these symptoms we would have expected to find in organic disease. The third point is the exception of the face from the hemiplegia, and this is a condition which Charcot states (Dis. of Nervous System, Vol. III, p. 282) that he was unable to find at all well-marked in any case of organic origin. The shifting of the condition from one side of the body to the other under treatment may also be mentioned as a circumstance without parallel in cases of hemiplegia dependent on a material lesion. In short, the only fact which I can imagine being used as an argument against the diagnosis is the duration of the contracture; and while such a period as nine years is

undoubtedly a long one for hysteria, especially in the female sex, still it is not unprecedented, two cases of Charcot's being quoted by Fagge (Principles and Practice of Medicine, 2nd ed. Vol. II, p. 827) of ten and sixteen years duration respectively.

In Case II the family and previous history of the patient does not help one materially in pronouncing a diagnosis of hysteria, but the hysterical stigmata are very well marked. We have hemi-anaesthesia with sensorial anaesthesia (deafness of the right ear), contracted fields for white light and inverted colour-fields of vision, and marked ovarian tenderness. Although the hemiplegia is not accompanied with rigidity, still it is quite as marked as in the first case, and it presents most of the characteristics already discussed, viz: absence of atrophy in the limbs, absence of change in the electrical reaction of the muscles, absence of the involvement of the face, sudden disappearance, and sudden reappearance. The hemi-anaesthesia is not so intense as in the other patient, but the remarks already made apply to it equally; and it is difficult to imagine a patient presenting this symptom without others characteristic of gross lesion, unless it be of hysterical origin. Two features are found in the second case which were not present in the first, viz: absence of muscular sense and

presence of inverted colour fields of vision. The first of these is scarcely ever observed in paralysis of cerebral origin from other causes than hysteria (Charcot, Vol. III, p. 282); and the second is an important sign since it is by no means infrequent in hysteria, is very often permanent, and it cannot be simulated. It is a matter for regret that the length of time required for the examination of the second point is, however, seldom available in out-patient practice.

+ value & therefor safe remarks

PATHOLOGY

Properly speaking, there is as yet no pathology of hysteria, although there are not wanting certain theories and attempted explanations of the symptoms. Since the recognition of the disease in the male, the old idea from which the name hysteria is derived (*ἰστέρα*, a womb) has been abandoned, but it would be a mistake to ignore the fact that the uterus has, in some cases, more or less influence on the course of the disease. Our cases illustrate this point. In the first there is a history of precocious menstruation, of improvement in the symptoms on marriage, and of relapse under the anxieties of maternity. While, in the second, the disappointment of delayed marriage, possibly entailing unsatisfied desire, apparently ranked as a predisposing cause.

From the title of this thesis, it will be seen that traumatism is looked upon as having played an important part in determining the outbreak of the symptoms in one, or both, of the patients. In Case I, the contracture and paralysis were coincident with a fall downstairs, and although no one witnessed the fall and there were no marked bruises to indicate on which side the patient did fall, still the presumption is that she fell on her left

side, the side which was thrown into a state of contracture. Had it been a hemi-plegia dependent on a sudden organic brain lesion, one could understand the fall occurring immediately subsequent to the attack; but, in a hysterical affection of this kind with no history of shock or fright immediately preceding the accident, it seems legitimate to conclude that the fall caused the paralysis, and not that the paralysis caused the fall. In Case II. the traumatic origin is apparently more remote because the development of the paralysis was much more gradual than in the other patient. There was a clear history of injury to the ear and doubtless there was, in the first instant, some slight laceration of the meatus, but that the haemorrhage from that locality was perpetuated by hysteria seems probable for the following reasons:- (1) Dr Dundas Grant, in spite of repeated examinations, was unable to find any lesion to account for it; (2) it was followed in due time by other haemorrhages for which no local cause could be found; (3) there were no constitutional conditions such as haemophilia, purpura, or suppressed menstruation which might serve to explain it. If, on the above grounds, it be granted that this primary traumatic symptom of haemorrhage from the meatus was perpetuated by hysteria, the connecting links between it and the

of whom? is rather rather
- like Macaulay's "every
schoolboy knows"

more severe symptoms fall fairly naturally into position. The patient came with the one complaint of bleeding from the right ear; but on examination she was found to be deaf in the same organ. The deafness, again, proved to be only a part of a general right hemi-anaesthesia which was soon followed by a series of attacks involving more particularly the affected side, and associated with the gradual onset of right hemiplegia.

o / That traumatism plays a part in the production of hysterical manifestations is perhaps not sufficiently recognised. It is, however, quite analogous to the action of the same agent in gout. Most of us have seen in gouty patients an attack, supplementary to the regular spring or autumn one, brought on by an injury. Moreover, as Charcot has pointed out, not only does the injury determine the attack; it also determines the seat of the attack which need not be in the joint regularly affected unless that happens to be the one which has been struck or injured. We have thus a disease of the nervous system, and a disease of metabolism - two very different conditions - behaving in exactly the same way under the action of the same agent. Savill, writing on neuropathic spinal disease (St Thomas's Hospital Reports, Vol. XVIII), explains the action of traumatism in hysteria thus:- "The organic sub-

stratum may be very slight, amounting to no more, perhaps, than a congestion or a trifling luxation, but yet sufficient to determine the seat of the neurotic symptoms, and to call forth the manifestations of the hysterical diathesis. In a perfectly normal constitution the trifling injury would pass unnoticed, but the slight pain by constant "attention" becomes intensified; other symptoms follow and are developed in the same way, and persist long after the initial congestion from the injury has passed off. In our cases one may look upon the traumatism as causing a reflex action; in the first case the paralysis appeared at the moment of the accident, while in the second it appeared only after a sort of incubation stage of unconscious mental elaboration. By means of hypnotic suggestion Charcot was able, in certain cases, to produce various paralyses, rigid or flaccid. He compared the action of traumatism to such hypnotic suggestion, both agents producing what he called a dynamic lesion of some part or parts of the central nervous system. Applied to our cases this theory would indicate a dynamic lesion of the motor cortex and, in view of the hemianaesthesia, of the posterior part of the cortex as well.

The effect of the traumatism in our two patients was very different, and it might be asked why in the one the paresis was attended with contracture,

and in the other with flaccidity. The previous histories of the patients afford some explanation. In Case I the whole career of the patient from childhood had been under a cloud of hysteria, and one would expect more profound symptoms under these circumstances. The amount of injury is no guide to the extent of its consequences, as it has been shown in several published cases that the paralysis has been most extreme where the traumatism was of the slightest description. If one were to follow Charcot's teaching here one would say that the first patient had a contracture diathesis, whereas in the second this was absent. Charcot claims that in hysteria, as in paralysis due to a material lesion, there is sometimes a hyperexcitability of the grey substance, and particularly of the motor cells of the anterior horns, a condition which he names Strychnism (Vol. III, p. 38). This affords a good explanation of the occurrence of rigidity in such cases, the theory being that irritations of the centripetal nerves augment the already excited condition of the motor cells; the measure overflows, and the centrifugal nerves transmit the irritation to the muscles which they supply. If this hyperexcitability be absent, as we may suppose in the second case, then a flaccid paralysis results.

The vaso-motor theory of epilepsy is well

known, although by no means generally accepted, and it might be thought that in hysteria the same theory would serve to explain the divers manifestations of the latter disease. Certainly vaso-motor symptoms appear to be the only constant phenomena met with in the various forms of hysteria; and it is natural to suppose that the activity of the brain, or of parts of the brain, depends on the blood supply: like the other organs of the body. Physiology, however, teaches us that the brain, being situated in the closed cavity of the cranium, differs materially from the other organs in regard to the regulation of its blood supply. Although the cerebral vessels are endowed with a certain amount of muscular fibre, vaso-motor nerves have never been found in connection with them, and experiments published this year by Leonard Hill (*Physiology and Pathology of Cerebral Circulation*; London, 1896) show that the vaso-motor system only indirectly affects the cerebral circulation through the variations in general blood pressure brought about chiefly by the contraction or dilatation of the vessels in the Splanchnic area. The vaso-motor centre, being part of the central nervous system, feels the same needs, and is stimulated by the same centripetal impulses, as affect the rest of that system; and thus it maintains a supply of blood corresponding to the requirements of the central nervous system. In certain patholo-

gical conditions, such as shock or exhaustion, this mechanism is so weakened that compensation for gravity is abolished; a condition of cerebral anaemia results, and as a consequence, more or less unconsciousness, paralysis and anaesthesia ensue. If cerebral anaemia is produced experimentally by a sudden method, such as ligature of the carotid and vertebral arteries, epileptic spasms may be produced. And indeed, in certain human beings whose anastomosis in the circle of Willis is not very free, pressure on one carotid may cause formication and epileptic spasm in the limbs of the opposite side. All this does not negative in the least the theory that vaso-motor derangement is accountable for such symptoms of hysteria as syncopal and epileptiform attacks, but there is nothing to explain the more permanent conditions of paralysis and anaesthesia. To do so on the same lines one would require to suppose that there are local anaemias of various nerve centres, but, in the absence of cerebral vaso-motor nerves, such a supposition would not be tenable.

After all, we must retain hysteria in the group of mysterious diseases which we term functional. As Gowers says, it is probably the most perfect type of a functional malady. "It not only consists in, but arises by, a functional disturbance - a loss of

the due balance between certain of the higher functions of the brain." We must not, however, look upon hysteria as a mere affair of will as the definite groups of symptoms depend on the secondary derangement of lower centres.

Ramon y Cajal, in a recent paper (Arch. f. Physiol., Du Bois-Reymond, 1895, p. 375) suggests that insulation between one group of cell-processes and another is brought about by means of the neuroglia cells. These cells are found either with expanded or contracted branches. In the former condition they favour, in the latter they retard, the spread of nerve currents. This is the latest theory of epilepsy, and it appears to me that some such minute anatomical basis will at some future date be found in hysteria, and will explain the restrained function or unrestrained activity of the cerebral centres, which finds expression in such symptoms as hemi-anaesthesia, paralysis, and contracture in that disease.

It may be said that our knowledge of the essential element in hysteria is too visionary to render its discussion of practical value; and while that may be true at the present time, it is to be remembered that the work of research is ever advancing, and the future may yet see the large group of functional nervous diseases supplied with a morbid

anatomy. In the meantime, a review of our position may serve as a fresh incentive to research.

TREATMENT

In considering the treatment of hysterical affections as illustrated by our cases, it will be convenient to begin with the second case which, being incomplete, may be dismissed in a few words. The patient attended for five weeks and took during that time a mixture containing Ammon. Brom grs xv and Tinct. Valer. Ammon. m xxx. She had no return of the convulsive seizures, which was so far satisfactory; on the other hand, we failed to detect any improvement in the paralysis. At her fifth visit the Faradic brush was applied to the limbs of the affected side for quarter of an hour, and, although a current of only moderate strength was employed, it gave rise to a good deal of pain. This appeared to frighten the patient away, and we did not see her again for over two months. She then made one return visit, but unfortunately did not repeat it; further observation of her case was thus prevented, which is the more regrettable in as much as her condition at that time gave rise to the hope that she would ultimately do well. The anaesthesia was still present in some degree, but the paralysis was so much less that she came unattended, walking without lameness, and able to go a considerable distance without fatigue. She stated that the improvement had not become noticeable for quite a month after

the Faradism had been used, and it is difficult to trace the relationship of cause and effect under these circumstances. But it may be that the moral atmosphere of the hospital, the drugs, and the electricity initiated the improvement, although, so far as the paralysis was concerned, that improvement did not become apparent until several weeks after the remedies had ceased to be employed. It was, however, elicited that her matrimonial prospects were brighter, and it is probable that this fact had more to do with her progress towards recovery than anything else.

Our first case attended regularly and faithfully, and we had the satisfaction of seeing in her an almost complete recovery from a condition which had lasted for nine years. As her recovery is attributable to hypnotism, it may be permissible to make a few remarks on that subject as a therapeutic agent. Bernheim ("Hypnotisme, Suggestion, Psychotherapie.", Paris, 1891) defines hypnotism as "the production of a psychical state in which the readiness of the mind to receive, and its ability to carry out, suggestion, are greatly increased; and suggestion he defines as "the act by which an idea is introduced into the mind and received by it as true." This definition does not limit the use of suggestion to any particular phase of the hypnotic trance, and indeed does not necessarily involve any

degree of trance at all; so that it is possible to include under the head of hypnotic treatment the cures of hysterical affections, which we read of as having occurred at the end of the thirteenth century by pilgrimages to the Tomb of St Denis. These patients were, doubtless, affected by the rumours of this means of cure in such a way that their minds were ready to receive, believe and act upon, the suggestion of cure which the visit to the Tomb provided. If this explanation of a historical fact be the correct one, hypnotic suggestion is a very old remedy; but it cannot be said, as yet, to possess the respectability which old age usually confers. It is still associated, to a great extent, in the public mind with the trickery of public performances. Electrical treatment was, at first, viewed with suspicion for the very same reason, and if this were all that hypnotism had to face it would probably soon overcome it. The fact is, however, that the public have such an exaggerated idea of the power which a hypnotizer obtains over his patient, and in some cases such a lamentably poor opinion of medical men, that they imagine their persons and property would no longer be under their own control if they were once to submit themselves to hypnotism. For this reason hypnotism is not likely to be much used

in the meantime except in the case of hospital patients who have usually no legacies to bequeath either to the doctor or anyone else. Another reason urged against hypnotic suggestion is its alleged bad after-effects. This is a reason not confined to the laity, but found in some of our text-books, e.g. Ormerod (Dis. of the Nervous System, London, 1892) says: "Hypnotism has been largely recommended lately for therapeutical purposes, but it would appear to be a double-edged weapon." The ill-effects are not specified; general statements are made, and made, so far as one can learn, without sufficient reason. I have the authority of Dr Lloyd Tuckey (author of Psycho-Therapeutics, London, 1892) for stating that, in an experience of over ten years special practice, he has never seen harm result to a single patient from the use of hypnotism as a medical treatment. This is a statement of value and, in view of it, it is a matter for regret that any of our text-books should assist in casting discredit on an agent which may yet prove, if it has not already done so, worthy of a place on our list of remedies.

The usual means of inducing hypnotism is by the "fixation" method in which the patient is made to concentrate his vision on a piece of cut crystal, or other bright object. It is believed that, in a

suitable patient, the attention is by this means so riveted that a condition of cortical inhibition is induced; this finally involves the centre for sight, the eyes become closed, and the operator has, as it were, a clean sheet on which to write his suggestion. It has already been pointed out in the remarks on pathology that the fault in hysteria is supposed to lie in the higher cerebral centres; and in hypnotism we have a means of treatment which is believed to act on the same structures, and one that would therefore appear to be specially suitable for the treatment of the disease under consideration. This indeed was the opinion held by Charcot; but many hysterical patients are so much engrossed with their maladies that their undivided attention is not always readily obtained, and in that case they cannot be hypnotised. Where this difficulty does not arise there appears to be, in the treatment of hysterical affections, a field for the use of hypnotic suggestion under certain conditions. These conditions may be shortly stated as (1) where the standard treatment is unobtainable or unsuitable, and (2) where the standard treatment has failed. By the standard treatment is meant general attention to health, massage, electricity, baths, exercises, moral influence; or the use of the special method advocated by Weir-Mitchell and Playfair, in which

the above remedies (except exercises and baths) are employed with the addition of absolute rest, over-feeding, and strict isolation. The greater number of these measures really act to a large extent as moral agencies giving rise to an expectation of recovery and having also, to a certain degree, a disciplinary effect. The over-feeding has for its object the renovation of tissue, and this it accomplishes when massage is properly carried out. The Weir-Mitchell method and its modifications are extremely successful, but there remain a certain number of cases to which it is unsuited and which may even be made worse by its employment. In another, and probably larger, group of cases the method entails so much nursing and expense that it cannot be employed.

At the West End Hospital there is not as yet indoor accommodation for adults, so that our patient was debarred from anything approaching the method of treatment we have been last considering. For this reason, and after the failure of drugs and electricity, she was subjected to hypnotic suggestion. That she obtained only good from its employment, that she proved a suitable subject, and that the treatment was highly successful has been seen from the clinical record of her case.

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BY

WALTER K. HUNTER, M.B., B.Sc.

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