

NOTES ON A FEW CASES
OF
FUNCTIONAL NERVOUS DISEASES
ENCOUNTERED SEPTEMBER-DECEMBER, 1919,
WITH OBSERVATIONS ON SAME
AS REGARDS DIFFERENTIAL DIAGNOSIS AND
GENERAL TREATMENT.

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F O R E W O R D.

Hysteria (Gr. ὕστερος a Womb), so-called because the early idea was that it was a disease confined to the female sex alone and originated from some diseased state of the female generative organs) is one of those baffling conditions which have puzzled Physicians for many decades. As far back as Greek times cases were described (sudden loss of voice for instance) which leave no doubt as to their Functional character. The epidemics too, of St. Vitus' Dance which swept over Europe in the fifteenth and sixteenth centuries, and the old story of the Nuns in a French convent who commenced to bark like dogs, were all, undoubtedly, exhibitions of Hysteria.

The serious study of the disease, however, did not commence until the end of the eighteenth and beginning of the nineteenth centuries, and logical explanations were not really forthcoming until expounded by Janet and Babinski in the "eighties" of last century. Practically, however, until the last war it was confused by the great majority of Practitioners in this country with Malingering. It has long been recognised by the French school as a separate entity, and, indeed, contrary to our custom in this country, they speak quite openly before the patient concerning his condition.

As regards its etiology it is still very obscure though the recent war and the number of Functional cases encountered have undoubtedly done much to stimulate research in that direction and has furnished us with much valuable information. All that one can say at present is that it is due to an Exhaustion of the Higher Nerve Centres. The conscious sense would seem to be dissociated from the subconscious, with the disappearance of the former and persistence of the latter. Why one person should be affected in this peculiar way and another not, it is very difficult to say, but there is no doubt that there must be, in part at least accounting for the condition, some inherent instability of the Central Nervous System (which may be weakened, we know, by the demands of nature, e.g. at the period of puberty, as the result of disease such as Chronic Alcoholism) with undoubtedly some hereditary predisposition. One has only to examine a number of cases to be struck by the number of relatives in the family who have been of nervous temperament, who have suffered from Epilepsy, Chorea and many other kindred and associated conditions. The incidence is not confined to any particular age, but most cases occur at, or shortly after, nubility, and more commonly in young women. The active physical and organic

growth which takes place at that period would seem to lower the vitality and stability of the Central Nervous System and so render it more liable to be upset by the very often trivial circumstances which would register no impressions at all on a healthy mind. One of course does not find cases in infancy or early childhood because the Higher Centres are still in an undeveloped state.

CAPUT I.

The following two cases illustrate very well the condition known as "Hysterical Fits". The second shews a functional element superadded to a true morbid condition and illustrates the necessity for a careful enquiry into patient's history, surroundings etc. and shews the difficulties of differential diagnosis and the chief points to look for in elucidating the facts necessary for a satisfactory diagnosis.

CASE OF MRS. A----- S-----, Aet. 19.

FAMILY HISTORY. Bad. Father in Asylum, ?cause.

HISTORY.

Has always been of rather nervous, "jumpy", temperament. Married at nineteen to a South African Cousin in much against her will. Husband left her the night of her marriage and she never saw him again until two months later when he came home intoxicated and struck her. Husband has not lived with her. Very emotional. Before admission had been enlisted in Salvation Army and talked of going as a missionary abroad.

STATE ON
EXAM.

Very thin, pale and anaemic. Has been vomiting constantly after food for weeks. Looks upon vomiting as a matter of course and immediately she has finished a meal takes up a basin and vomits up what she has swallowed. Obviously very neurotic in temperament. Marked trembling of eyelids. Hemianalgesia off and on. Complains of waves up each side of body meeting in vertex of head. At other times whole anterior surface of trunk hyperaesthetic with well marked spots of pain on pressure under Mammae and in Rt. Iliac fossa suggesting "Hysterogenetic Spots". Menstruation Irregular and difficult. Organic disease excluded on

Case of Mrs. A. S. Contd.

careful exam. No alteration of Reflexes.

During the time she was under treatment she had several Hysterical Fits. She would suddenly scream out aloud (especially if the Doctor was in the ward) throw herself off the bed, roll her eyes about, stiffen her whole body. Respiration sighing in character with marked up and down movement of the larynx as if she were endeavouring to swallow something. Face pale. If a nurse were present and went to her assistance she would resist her. The fits often lasted for from twenty minutes to half-an-hour if the Doctor was not at hand with some strong ammonia. The application of the latter, and a firm attitude, soon reduced her to a normal condition. Quite sensible immediately after fit. No loss of control over Sphincters etc. For differential Diagnosis v. infra.

TREATMENT.

(1). Patient was isolated for some time. (2). Kept at rest in bed. (3). Plenty of good food. (4). Firm but kindly treatment on part of attendants. (5). Pil. Blaud for Anaemia (which was a secondary condition and entirely due to the frequent fits of vomiting and consequent Marasmus). General tonics for other symptoms. (6) General massage.

Case of Mrs. A. S. Contd.

This patient made an excellent recovery and put on weight very fast and pseudo fits eventually entirely disappeared. After discharge she wrote about two months later and sent her photograph. She had made a total recovery and was on the point of sailing for South Africa with her husband who was engaged as a mine overseer at one of the Kimberley gold mines!

CASE OF A----- A-----, Age, 20.

COMPLAINT. Fits for last thirteen years.

FAMILY HISTORY. No history of fits in family except in the case of an elder brother when "teething". Mother a very nervous individual.

PERSONAL HISTORY. Has not worked for last three years because of fits. Prior to this was engaged in domestic service, but had to leave because of condition. Has always been of nervous temperament and overconscientious. Home conditions good.

PREVIOUS ILLNESS. Operated upon for Dysmenorrhoea three years ago.

PRESENT ILLNESS. Present illness is said to have commenced when she was seven years of age. She was at school at the time and teacher was scolding another pupil close at hand. She got a fright, screamed and went off in a fit. Fits practically every day since, but much more severe and of longer duration during last three years - latterly two or three every day. They are always worse at menstrual ~~perind~~ epoch. Has been under treatment with Bromides for past twelve years. Took medicine regularly until it was stopped by Doctor's orders; fits undoubtedly more numerous and more severe since it was stopped. Longest period without fits, three weeks. Patient herself differentiates

Case of A. A. contd.

her fits into two kinds:-

- (1) "Nervous" fit or "Stiff" turn in which she feels nervous, body stiffens, feels choking sensation in throat, but does not lose consciousness. Can often inhibit fit by sitting in chair and clasping hands firmly together. Usually occur after getting out of bed in the morning. No incontinence. Last for a minute or two only. No after effects.
- (2) Fits in which she receives no warning, but simply falls unconscious - which state may last for half-an-hour. Very often hurts herself in falling - on one occasion fell into fire. Has repeatedly bitten her tongue and cheeks. Frequently fits occur at night and she may pass urine and faeces involuntarily. When fit passes off she feels weak and dazed with intense desire to micturate. Usually falls asleep shortly after.

ON EXAM.

Patient is well developed, intelligent, adult woman. Well nourished. Good colour. Scar on chin from previous injuries in falling. Marked stigmata of degeneration in shape of lobes of ears which are symmetrically broadened, slightly twisted and deformed. Nothing organically wrong to be made out. Very neurotic temperament. Inclined to Religious

Case of A. A. contd.

Mania. Continually reading her Bible, singing hymns and depressed and listless.

Whilst under observation she had several fits of hysterical type and only one of true Epilepsy. In the former (of which only one will be quoted) she was suddenly seen to throw herself out of bed. Screamed out and resisted the nurses who went to her assistance. Eyes closed. Respiration sighing. Turned pale in colour. No twitching of muscles but rigidity of whole body. Did not lose consciousness. No rolling of eyes. Pupils equal in size and reacted to light. Lasted about three minutes. When she came round she informed us that she had just had a "nervous turn".

The true Epileptic manifestation occurred a few days later. She suddenly screamed out and was found by the nurse to be unconscious. Eyes widely opened and staring. Pupils dilated. Breathing stertorous. Foaming at mouth. Face got very cyanosed. Lower limbs quite rigid at first and then commenced to twitch. Face also twitched. No marked movement of arms. Pulse 104 during attack - later 96. Passed urine in bed. When she came round did not know she had had a fit. Breath had a very disgusting odour. Tongue bitten on right side. Went off to sleep immediately afterwards.

Case of A. A. contd.

This patient improved greatly under hospital regime. By the time she was discharged had entirely lost her state of depression. Had ceased to read Bible altogether and concentrated on exciting novels! For three weeks prior to discharge she had had no fits of any description.

TREATMENT.

Rest in bed, isolation for two weeks and later plenty of work (sewing etc.) to occupy her time and distract attention from herself. Plenty of food. Potass. Brom. grs. xv t.i.d. pc. General tonics such as Tinct. Nucis Vomicae with a bitter infusion.

Was under treatment as an in-patient for about five weeks. Was discharged fit and advised to continue taking Bromides regularly. She remained well for two months except for an occasional Epileptic attack. Home worries, however, upset her and all her Hysterical symptoms ~~repeatedly~~ recurred. She was advised to go to friends in the country when trace of her was lost.

The above case was comparatively simple to put right, but illustrates how difficult it is to prevent recurrence when patient returns to the care of sympathetic relations.

DIFFERENTIAL DIAGNOSIS OF HYSTERICAL FROM TRUE
EPILEPTIC FITS.

The above two cases illustrate pretty well the general characteristics of Hysterical fits, but the second illustrates more particularly how difficult it sometimes is to diagnose a functional condition when combined with some other underlying organic cause, in this case, True Epilepsy. In the case of A---- A---- the Epileptic fits (i.e. those in which she said she lost consciousness and injured herself) would seem to be comparatively infrequent (for which the Bromide had probably something to do) whilst the "Nervous turns" seemed to be much more common.

In the Differential Diagnosis the main points to watch for are the following:-

I. HISTORY. This is very important. In epileptic cases the history of fits, in most cases, dates back for years - often to childhood with "teething fits" etc. Very frequently relatives and parents have been Epileptics also. The True Epileptic often shows what are called "Stigmata of Degeneration", e.g., malformations of Auricles, Highly arched palate, extra fingers or toes, etc. which are very suggestive, very helpful in making a diagnosis and should always be carefully looked for. In Hysterical fits the history usually dates back only a short time to the origin of the present trouble. Epileptic fits are of frequent occurrence during sleep - hysterical conditions never come on during sleep.

Differential Diagnosis contd.

II. GENERAL ATTITUDE. The Epileptic is, as a rule, disinclined to talk much about his malady. He will deceive you if he possibly can. This was the experience of many R.A.M.C. Officers in the Army. He is, as a rule, dull in expression, listless, ~~and~~ apathetic and not very acute mentally. His fits come on at any odd time and in any odd place. The Hysterical cases on the other hand like to talk about their condition and enlarge on their symptoms and they take care to have an audience when they have a fit.

III. AURA. Epileptics in most cases have some warning - Motor, Auditory, Gastric etc. as the case may be. Aura is never found in hysterical condition.

IV. EPILEPTIC CRY. This is often present and consists of a loud, piercing shriek before the patient falls unconscious. In Hysterical condition, on the other hand, the piercing, screaming character of the Epileptic's cry is not present, though the victim may cry out and be often very noisy throughout the fit.

V. DURATION. In Epilepsy fits do not usually last from more than ^{from} twenty minutes to half-an-hour, whereas in the other condition, if not dealt with, they may go on for hours. The former can never be cut short

Differential Diagnosis contd.

by any known means, whilst the latter can often be inhibited by energetic treatment, e.g. inhalation of Liq. Ammon. Fort. is extremely useful.

VI. CONSCIOUSNESS. This is always lost in major Epilepsy - never in functional condition.

VII. HISTORY OF INJURY. Epileptics fall to the ground instanter. History of injury is practically diagnostic - biting of tongue, wounds in the back of the head etc. Scars on the chin should always be looked for as the latter is the commonest and easiest place to locate a previous injury if history is indefinite. Note history of "falling into the fire" or "Machinery" etc., if patient was at work at the time. In the other class of fit no such history; does not drop down in the helpless way that an Epileptic does; takes extreme care to fall lightly - lowers himself to the ground, as it were, and never by any chance injures himself.

VIII. CONDITION OF EYES. Eyes widely opened and staring in Epilepsy with dilated pupils which fail to react to light; Corneal Reflex gone. In functional cases the eyes are usually closed, eyeballs not rolled upwards, pupils not dilated and reacting quite well to light. Corneal Reflex present.

Differential Diagnosis Contd.

IX. OTHER APPEARANCES. In Epilepsy respiration stertorous, noisy and rapid in character with marked cyanosis of the face and engorgement of the veins of the neck. In the other condition the face is pale, respirations sighing and fluttering in character.

X. REFLEXES. In an Epileptic case the knee jerks are often absent for some time and one may obtain a double Babinski. Hysterical cases never shew any alteration of the knee jerks and never by any possible chance shew a positive Babinski.

XI. INCONTINENCE. Incontinence both of urine and faeces is very common in history of Epilepsy, more especially when fits occur during the night. This phenomenon is entirely absent in functional condition.

XII. TONIC AND CLONIC SPASMS. These are unmistakable in a case of true Epilepsy. The initial rigidity often (opisthotonos) followed by clonic spasms of the limbs or facial muscles or whatever it may be. This is never seen in Hysteria and although the patient may throw herself about the bed the absence of the above sequelae cannot escape the eye of the trained observer.

XIII. PURPOSIVE MOVEMENTS. Usually in Hysteria the

Differential Diagnosis contd.

patient will tear her hair, throw the bedclothes about etc. - all actions which shew a purpose behind them.

Purposive movements are never present in Epilepsy.

XIV. SENSORY LOSS. There is no sensory loss after an Epileptic fit but there often is after an Hysterical attack.

XV. MENTAL CONDITION FOLLOWING THE ATTACK. One always

finds that the Epileptic has no knowledge of having had

a fit; seems dazed for some time afterwards, and may shew many of the symptoms of the well recognised "Post-Epileptic"

state with "Automatism", complete loss of memory, indecent behaviour. On coming round the hysterical patient will, if asked, at once inform you that he has had a fit, shews none of the characteristics of the "Post-Epileptic" state and does not usually fall into a deep sleep lasting for several hours as the Epileptic customarily does.

Finally in coming to a definite conclusion as to whether Epilepsy, or Hysteria, or both are present in any given case one must take all the factors into consideration. It is very rarely that one is so fortunate as to see, or the subject obliging enough to take a fit in one's consulting room, so that the history must be very carefully scrutinised. The laity's ideas on the subject, and their description of a fit are oftentimes rather

Differential Diagnosis contd.

bewildering to say the least of it - even a trained nurse may give a very misleading report on a case. One was for some time in doubt in the case of A--- A----- quoted above. The Epileptic history, of course, was sufficiently conclusive and one rather suspected the presence of the other condition, but, until one had actually seen her in a series of fits, it was impossible to arrive at a satisfactory and definite conclusion.

Caput/

CAPUT II.

Cases illustrative of Functional Palsies and Contractures, with the distinctions between Organic and Functional conditions.

I. CASE OF G----- J----- Act. 24.

COMPLAINT. Recurrent Paralysis, Right arm: four years duration.

FAMILY HISTORY. Two sisters with Chorea.

PRESENT ILLNESS. On duty at Forth Bridge in Spring of 1915.

Got wet. All right when he went off duty. Next morning Right arm helpless and felt as if he had no arm at all. Sensation gone. Diagnosed Neuritis by R.M.O.

Painted with Iodine. No improvement. Transferred Stobhill and diagnosed as Myelitis and discharged. Was in Stobhill for six weeks prior thereto. Electricity and massage. No improvement. Sent by Pensions Committee in 1917 to Bellahouston. Diagnosed as "Erb's Juvenile Paralysis" - incurable!

Went home. Relative sent him to Glasgow to see a doctor privately. Five months electricity and massage for half an hour daily. No result. Saw Dr. B----- at Craighleith in 1917. In hospital three months - isolated and went out cured. Went home, had holiday and resumed work. No trouble with arm again until September 1918. Admitted to R.I.E. under Dr. R-----. Went out in three weeks cured. No recurrence until March this year (1919). Hard worked and felt ill previous night. Next morning arm in same condition as before. Has remained in same state since March. Has been off work all

Case of G. J. contd.

the time. Could not get admission to R.I.E. and again sent by Pensions Committee to "Orthopaedic Annexe", Glasgow, in May 1919. Electricity and massage - again no result. General health good. Nothing to note in any other system.

STATE ON EXAMINATION. Patient tall, thin, sallow but intelligent. Neurotic. Paralysis of Right arm, which hangs stiffly from shoulder and is rotated inward. No paralysis anywhere else. Arm pressed close to body. On attempted passive movement marked tremor of whole limb, which does not resemble tremor of organic disease. Can move arm slightly at shoulder. Not at all at wrist or elbow. Can flex and extend fingers to small extent. No wasting of muscle. No fibrillary tremors. No Athetoid movements. "Glove anaesthesia" to pain and touch from finger tips to elbow. From elbow to shoulder zone of partial anaesthesia. Marked blueness and coldness of limb below ~~shoulder~~ elbow. *No weakness of legs.*

No difference in limbs in size. Chest muscles move well on coughing. Loss of power only affects muscles of which patient is conscious. On elevating shoulders does not elevate Right shoulder. Condition might be mistaken for total lesion of Brachial Plexus.

DIFFERENTIAL DIAGNOSIS. In latter whole arm not analgesic.

Sensation present along inner side of arm in total lesion. Can also use Trapezius^z as latter is supplied by Cranial nerves and not by Cervical or Dorsal. In Functional cases loss of power is of psychical nature - idea being that whole limb is powerless, accordingly note non-anatomical distribution of Analgesia as patient ~~can~~ cannot conceive of an anatomical distribution. Serratus Magnus and Latissimus Dorsi on both sides act well. ~~No weakness of legs.~~

TREATMENT. No elaborate mechanism necessary. Procedure to be applied was explained to patient. Informed that there was nothing magical or miraculous about it. Doctors understood his condition and treatment was a simple, straightforward thing. Ordinary Faradic current used and applied to motor points of muscle, (Biceps, Triceps, Supinator Longus, Extensors and Flexors of wrist) and patient's attention was drawn to the fact that his muscles still had the power of contraction. He was further induced to endeavour to voluntarily contract muscles while aided by current. This he did and in about fifteen minutes had considerable range of movement at elbow, wrist and shoulder with flexion and extension of arm.

Case of G. J. contd.

Grasp improved in Right hand from 0-80, as registered on Dynamometer - Left 115. Every day after this until discharged fit a week later he practised movements of arms in all directions and power of his grasp was registered and shown to him daily to encourage him. On discharge he had all movements possible whilst Dynamometer readings were Right 110, Left 115. (Patient Right handed). He also had general tonics and Strychine Hydrochloride ^{H₂O} gr.1/60 once daily and increasing every day by 1/10 until the maximum of gr.1/10 daily was reached when the dose was decreased in the same ratio as it was increased.

Patient was discharged ten days after admission quite fit and well and with the full use of his arm. He was obviously of very Neurotic temperament and was advised to avoid cold, wet, fatigue and excesses of any kind in future if he wished to prevent a recurrence.

COMMENTARY. A typical case of Hysterical Paralysis striking a limb in bulk. Cold, exposure and the fatigue of "sentry-go", and possibly an element of fear, operating on a congenitally unstable Central Nervous System produced the condition.

II. CASE OF T----- K----- Aet.22.

HISTORY. Employed with Show people. Accident 13th April, 1916. Angle iron fell from about a foot in height across dorsum of left foot. Treated in Great Western Infirmary, Glasgow. Foot stitched and sent home. *patient* Went about for some time doing nothing at all. As foot was not healing up went to Eldon Hospital and was recommended to have his second toe on left foot amputated. Few weeks in hospital. Sent out before it was healed up. Did not resume work. Drew Insurance money.

Called to colours 18th October, 1916. Still had bandage on. Passed Grade C. Transferred to Berwick on Tweed and was in hospital for few weeks. Wound completely healed. Always pain over instep after healing. Continually reporting sick. Foot gradually turned in. Transferred R.G.A. and then to Stobhill. Then to R.S.F.; then K.O.S.B.; then to Bangour. Treated with massage and electricity. Foot strongly inverted and ankylosed. Treatment undid this. Constant severe pain in ankle which has remained there ever since.

Does not rise on toe. ^{when walking} Keeps foot flat.

Case of T. K. contd.

STATE ON EXAMINATION. Marked inversion of foot and toes pointed. Cannot move foot voluntarily. It can be moved passively, but a certain amount of rigidity. Contraction of Tibialis Anticus. Spasticity and Contracture of calf muscles. If leg supported and foot passively moved it returns to old position against gravity as paralysed foot wouldn't do. Knee Jerks present and equal but exaggerated. Ankle Jerk present on right side but exaggerated. Unobtainable left side because of spastic condition of calf muscles. Babinski's Sign, left, negative (flexion). Right, negative (flexion). Spurious Ankle Clonus on affected side - for Differential Diagnosis between true and false Clonus V. infra. Other signs of nervousness - trembling of eyelids. Total anaesthesia to touch, pain and temperature over dorsum and sole of foot as far as ankle. Partial below knee. Normal Electrical reactions unchanged.

DIFFERENTIAL DIAGNOSIS from

(a) Peroneal Atrophy due to injury or lesion of the External Popliteal Nerve.

(b) Peripheral Neuritis.

1. No history of injury to nerve or any cause for a Neuritis.
2. No "drop-foot" present.
3. No wasting of Peroneal or Anterior Tibial muscles. No Reaction of Degeneration.

4. Normal condition of the Reflexes.
5. Distribution of Anaesthesia does not correspond to that produced by section of External Popliteal or inflammation of the Anterior Tibial Nerve.
6. Foot when passively moved at ankle contracts against gravity as organic condition would not do.
7. Condition is unilateral, whereas in either of the above conditions it would have been bilateral and symmetrical.
8. No tenderness on pressure over the calf muscles which is so helpful in the diagnosis of Neuritis.
9. No fibrillary tremors such as one often finds present in cases of Peroneal Atrophy.

TREATMENT. Could not be carried out in this man's case though he could quite easily have been cured. The Circus to which he belonged was leaving the district and he was unwilling to remain behind for proper treatment.

COMMENTARY. Likewise an excellent example of a Functional Condition affecting a limb grafted on a preceding trifling trauma.

III. CASE OF J----- G----- Aet. 33, MINER.

COMPLAINT. Paralysis both legs - four months duration.

FAMILY HISTORY. Nothing ascertained.

PREVIOUS HISTORY. Epilepsy for last fifteen ~~years~~ years.

PRESENT ILLNESS. On 9th July, 1919, was working in stooping position when large stone weighing 3 cwt. fell from roof, a distance of nine feet, striking him on back between scapulae and nape of neck. Unconscious for four minutes; face smashed; abdomen bruised. Recovered consciousness; felt loss of power in arms - all "pins and needles", but this went off in a few minutes. Pulled himself up and walked a hundred yards to doctor. Was in bed for thirteen weeks. Terrible pain in back for first seven weeks. Never total paralysis of legs - could always move them a little. Could stand up and walk if he held on to something and dragged himself along.

STATE ON EXAMINATION. Practically complete paralysis of both legs. Could bend them very slightly at knee - Right to greater extent than Left. Insists on sleeping in sitting up position. Keeps his chin bent on chest and refuses to hold his head up. Cries out if pillows removed. Induced to lie on his side and then legs were pulled out behind him and back straightened, thus shewing

Case of J.G. contd.

no injury to vertebrae. But if same attempted in ordinary way complained greatly of pain. No tenderness or sign of injury over spine. No wasting of muscles. Very marked coarse tremor on attempted movement, which if inhibited in one limb, spread to the other. Considerable amount of rigidity present. Knee jerks present and equal, & Ankle jerks present and equal. Babinski's Sign negative. Ankle Clonus negative. Complete anaesthesia to touch and pain from toes to groin on both sides. (This anaesthesia was proved to disappear during sleep; if then pricked with a pin in the foot or fleshy part of leg he turned round and grunted!) No change in electrical reactions. Coldness of feet. No oedema.

The whole of the Vertebral Column was X Rayed and nothing of note was found except that the tip of the Transverse process of the "Vertebra Prominens" had been very slightly damaged - this slight organic basis probably accounts for the hysterical flexion of head.

In appearance he looks a typical neurasthenic individual, with trembling, half-closed eyelids; pale, sallow complexion; blotchy skin - general sort of "hang-dog" look about him! Surly, and subject to fits

Case of J.G. contd.

of melancholy. Reads his Bible greater part of the day. Egotistical to a degree. Constant complaints about the smallness of the compensation awarded to him. Continually harping on his own ailments, his great muscular powers before the accident, and his present helpless condition. Refuses food and has to be coaxed in every way. Feeling of numbness and rushing of blood to the head. In the first ten days he was under observation he had three hysterical fits and only one true epileptic fit of short duration.

(For Differential Diagnosis ^{of fits} V. supra.).

DIFFERENTIAL DIAGNOSIS. From injury of the spine with transverse lesion of cord.

1. The condition of limbs. Tremor. No wasting etc.
2. No Reaction of Degeneration. Electrical Reactions unchanged.
3. Distribution of Anaesthesia
4. No loss of control over the Sphincters.
5. No alteration in the Reflexes.

A wound close to the vertebral column with super-added functional paraplegia has often been mistaken for a transverse lesion of the cord. This mistake could not have been made if reflexes had been understood and thoroughly examined.

Case of J.G. contd.

6. No Contractures at knee, hip or ankle, which are so common in organic conditions.
7. Absence of Trophic changes in the limbs - Bedsores on buttocks etc.
8. The fact that the Anaesthesia of the limbs disappeared during sleep.

TREATMENT. For the first three weeks after admission he was rigidly isolated, well fed and had Strychnine Hydrochloride gr.1/60 hypodermically. The dosage as usual was increased every second or third day by 1/10 of a grain until gr.1/10 was being administered daily when the dose was decreased in the same ratio. In addition he was daily exercised and instructed in the use of his limbs. He was shown how he was keeping certain muscles tense and not relaxing others. He was encouraged and persuaded in every possible way. He was never left until it was amply demonstrated to him that he had made some improvement in the previous twenty-four hours - sometimes this only took a few minutes, but at others nearly an hour was required to convince him. It was impressed on him that it wasn't fair to his wife, children or himself to remain a chronic invalid for the rest of his life, when, with a trifling amount of exertion on his part, and at the price of some little pain, he

Case of J.G. contd.

might be able to make a complete recovery. At the end of a month he was in the exact mood of "wishing to get well". He had lost his "dour", apathetic look and was taking an interest in life. He was able to stand on his feet, hold his head up and was lying flat on his back in bed for fifteen minutes daily. Suddenly, through the injudicious words of an attendant, who twitted him with a remark that there was nothing the matter with him, he had a relapse and was in little better a state than when he first came under observation. The unfortunate result was that he had to be discharged - he had lost faith in every one and further treatment on our part was entirely out of the question.

This case but serves to shew the supreme importance of gaining the patient's entire confidence - and of keeping it. It demonstrates how careful one must be neither by look nor deed to give such a case an inkling that there is nothing radically wrong with him, and also with what attention and discrimination one must choose attendants for these cases. All attendants must be specifically warned against giving any expression to their own opinions in the hearing of the patient.

Case of J.G. contd.

COMMENTARY. An excellent example of a Functional Paraplegia following an accident with contracture of the neck muscles and flexion of the chin on the chest following a trivial injury to the spine of the seventh Cervical Vertebrae.

IV. CASE OF M----- E----- Aet. 66.

COMPLAINT. Bending of back - of one year's duration.

FAMILY HISTORY. Nothing to note.

PERSONAL HISTORY. Comfortable home; good surroundings; works as an office cleaner; not hard worked.

PRESENT ILLNESS. Commenced about one year ago. Up till that time she had never had a day's illness in her life. Noticed at the end of a day's work she had slight pain in the small of the back and had difficulty in keeping herself erect. This stoop gradually became more pronounced, but was only present when she was walking about. She could stand erect with perfect ease!

STATE ON EXAMINATION. Patient is well developed, well nourished, very intelligent, but of slightly nervous temperament. When she walks her body is bent almost to a right angle. When stopped and asked to straighten her back she does so perfectly well and stands erect quite easily. No signs of any Organic Disease. Vertebrae move freely in all directions. No "boarding" or rigidity of muscles. The Erectores Spinae in both sides contract well and equally. No spinal curvature. Complains of

Case of M. E. contd.

some pain over the Sacro Iliac joints, but no pain when the Iliac are forcibly pressed inwards or outwards. Movements at Hip-joint are quite free and cause no pain.

TREATMENT. Patient was kept at rest in bed in the supine position for ten days. During this time she had massage of the Lumbar region for fifteen minutes daily. Faradism of the Erectores Spinae ten minutes daily. General tonics containing Strychnine. She was then allowed up and it was suggested to her that as there was no morbid condition present there was no reason why she should not walk perfectly well. She was discharged sixteen days after admission having made a perfect recovery.

COMMENTARY. Rather an unusual case of Hysterical Contracture occurring in an old lady. She had, ^{in all likelihood,} probably been run down at the time of its first appearance, and probably after a heavy day's scrubbing on her knees - for she was a charwoman - she felt her lumbar muscles tired, stiff and cramped and had some difficulty in straightening herself up. The debility and fatigue operating on a nervous disposition produced the condition.

V. CASE OF J----- S----- Aet. 27.

COMPLAINT. Pain and stiffness in the left foot for ten months.

FAMILY HISTORY. Father very nervous man; one brother died aged thirty-four of General Paralysis of the Insane.

PERSONAL HISTORY. Patient works in a shop. Good home. Habits regular. Has always been of a nervous temperament even as a child.

PREVIOUS ILLNESSES. Measles twice - infancy and age eleven. Whooping-cough in infancy. Pleurisy twice, age eighteen and twenty-four. Acute Appendicitis, age eighteen - operation. Operated upon for Adhesions, age twenty-two. Cystitis twice, age eighteen and twenty. Has been three times under treatment in Hospital within the last four years for Nervousness and Hysterical Vomiting. On several occasions had to be forcibly fed as she refused to take food.

PRESENT ILLNESS. Patient attributes the condition of the foot to a fall downstairs some ten months ago. Was running downstairs at the time and her foot gave way under her and she sat down on it. Continued working despite the pain. Carried on for two months painting it with Iodine and bandaging it with an elastic bandage. Consulted a Surgeon who ordered strapping. Foot was

Case of J. S. contd.

strapped regularly for five months, but it gradually became inverted. Joint was "X-rayed", but nothing abnormal was found. Chloroformed three months ago and foot straightened and put up in a plaster case for three weeks. All right when case was removed and walked about for a few days on it, but again inversion gradually took place. Re-examined by the Surgeon and operation advised. Two inches of the Peronei on the left side removed and limb put up in a case. The latter was kept on for four weeks. All right on removal, but inversion again took place. Has walked with crutches for last two months or so and refuses to put foot to the ground.

STATE ON EXAMINATION. Patient is intelligent and fairly well developed, but obviously of very neurotic disposition; pale, anaemic, and of sallow complexion. Marked trembling of eyelids and tongue. Fingers tremulous. Very talkative. Tongue furred. Bowels constive and Periods irregular. Left foot inverted and held rigid and immovable - complains of great pain on attempted movement. Slight difference in size of legs, but this is undoubtedly due to disuse. No loss of muscle tone. Electrical reactions unchanged.

Case of J. S. contd.

Small operation scar on outer aspect of left ankle.

REFLEXES. Knee jerks equal, but exaggerated. Ankle jerks present right side, but absent left because of rigidity. Babinski's sign negative. Ankle Clonus negative. Can move toes slightly, but not the foot. Complete loss of sensation to pain and touch over dorsum and sole of left foot as far as the ankle; partial over the lower part of left leg. Nothing to be found in any other system.

DIAGNOSIS. Functional Contracture.

COMMENTARY. Typical case of Contracture with definite history of foregoing attacks of Hysteria. She was so nervous when first seen that nothing was attempted in the way of treatment beyond complete rest in bed to allow of her settling down. But, unfortunately, there happened to be a young girl on the opposite side of the ward with Chorea, and three days after admission this Hysterical case developed distinct Choreic movements of the right arm and hand, followed a day or two later by a similar condition in left arm and hand.

Case of J. S. contd.

She was therefore completely isolated and ^{an} effort was made a few days later, when she appeared to be in rather a cheerful frame of mind, to stop the Choreic movements. This was easily effected by simple suggestion. First one upper arm and then the other was firmly held for about five minutes. The pressure exerted was as great as one could make it, and, at the same time, it was suggested to her that she could keep her hands perfectly still and that the pressure on her arm would assist her. The ruse was quite successful and she was told the condition could not possibly return even when the grip on her arm was relaxed. She had no recurrence.

Later she developed for some unknown reason clonic jerking movements upwards of both eyebrows with various facial contortions. This likewise was stopped by suggestion accompanied by very firm pressure with the thumbs over the Supra-orbital Nerves at their point of exit from the supra-orbital foramina. It took exactly twenty-five minutes to stop the movements but they were most effectively controlled in this way and up to the ^{Time of discharge} ~~present~~ there had been no recurrence.

Case of J. S. contd.

During her stay in Hospital she also developed an acute Laryngitis with a slight rise of Temperature as the result of a cold. For a few days after the Temperature had fallen and the local catarrhal condition had cleared up she was threatened with a Functional ^{Aphonia} Affinia, but under suitable suggestion to the effect that on laryngoscopic examination her throat was found to be quite better and there was no reason why she should continue speaking in her present hoarse, croaking fashion, her speech became normal once more.

The patient was rigidly isolated for over a month altogether and during this time she was afforded the fullest possible amount of rest and given plenty of good food. A simple bitter tonic mixture with Hyoscine Hydrobromide gr.1/200 by the mouth night and morning was administered and increased up to gr.1/60 three times a day after food (for suitable prescription for this Mistura V. infra.) to quieten her state of marked excitability. She had frequent exercise of the foot with appropriate suggestive treatment. She complained greatly of pain at commencement on attempted passive movement of foot. As she was such a nervous

Case of J. S. contd.

individual one did not like to press the treatment unduly and it was never attempted on the days she was depressed, listless and sullen. Progress was gradual and she was never left until she herself was firmly convinced that she had made some progress since last effort, no matter how trivial it might have been, and the result was most satisfactory.

At the end of this period the screens were removed and she was allowed up, whereupon she became quite cheery and almost too demonstrative in manner, as many of these cases do, when they begin to shed their previous apathetic frame of mind. The final result on her powers of locomotion was most satisfactory.

She walked quite well except for a slight limp - which may, of course, have had an organic basis as it was extremely difficult to say whether or not there might be a few adhesions, or something of that sort, following the operation of tendon-shortening as mentioned in the history.

In the end she was discharged quite fit and well and weighing a good few pounds heavier than she did at the date of admission.

This case again illustrates well the fact that in many cases of Hysterical Paralysis or Contracture

Case of J. S. contd.

there often is some slight organic basis for the lesion, and almost invariably if recurrence takes place it is the same minor accident or emotional disturbance which produces it. In this case she had quite evidently sprained her ankle. Similarly many ^{other} ~~of the~~ cases are attributed to slight traumata, which, quite possibly, ~~were~~ were exceedingly painful at the time, but which have long since cleared up.

PROGNOSIS. Though this case was discharged cured at the time, it must be quite obvious from a close scrutiny of ~~the~~ her family history, her ^{own} very ~~un~~ stable nervous system as evidenced by her previous Hysterical attacks, and the extreme ease with which she could be influenced by suggestion that recurrence of Hysteria in some form or other is almost inevitable. And, although, before being passed out, she was informed as fully as possible as to the lines on which her future mode of life should be conducted - quietness, freedom from excitement, plenty of sleep and fresh air etc. - still, the final result naturally remains rather doubtful.

In studying cases of functional paralysis and contractures and in eliciting the main points of difference between such a case and one of pure organic disease one may start from two standpoints:-

I. (a). By questioning the patient as to the mode and time of onset.

(b). By discovering certain areas of anaesthesia.

(c). By examining the symptoms which quite evidently bear no relation to true palsy.

(d). By examining his mental condition.

2. By straightway examining the limb and

(a). Noting the condition of nutrition; presence or absence of tremors etc.

(b). The state of the Reflexes.

(c). The muscle tone,

and so obtaining a vast amount of essential information, quite sufficient in the majority of cases being discovered, with which to make a correct Diagnosis without running the risk of presenting the subject with more false impressions than he already has! Babinski's famous dictum that "Hysteria is a condition in which certain symptoms are present which have been induced by suggestion," should always be borne in mind!

Of these two methods the latter is undoubtedly preferable for the reasons stated.

Differential Diagnosis is, as a rule, a comparatively simple matter.

DISTRIBUTION OF PARALYSIS.

Note I. That Hysteria always strikes a limb in bulk. It never picks out a single muscle or group of muscles. The Palsy always conforms to the patient's idea of a hand, a foot, a leg, or whatever it may be. In the case of G.J. quoted above all that he knew was that his arm ended at the shoulder, that certain of the trunk muscles moved his arms; that certain of his other muscles were enervated from points above the situation of any possible organic lesion in that area did not worry him in the slightest! Similarly in a patient with paralysis of the hand, the mere fact that most of the muscles required to move the hand are situated in the forearm has not the slightest meaning to him - his conception of a hand ending at the wrist.

Note II. History. Sudden onset without sufficient cause or premonitory symptoms, or a history of recurring paralysis is practically diagnostic.

Note III. Tremor of the limbs in attempted movement, which may be divided into the four following classes, but which in no way resembles the known tremor of organic disease.

- (a) Vibratory tremor which was well seen in the case of G.J. quoted above. This may be coarse or fine in character. On voluntary attempted movement, marked vibration of the whole limb and the whole body shakes. Seems to put a tremendous amount of energy into the simplest movements. If the limb is firmly seized and movement inhibited it not infrequently commences in another limb.
- (b) A Rhythmic tremor, possibly like that found in Paralysis Agitans, but without the typical "pill-rolling" movements of the latter disease.
- (c) Spurious Ankle Clonus is sometimes obtainable in the lower limb as in the case of T.K. (V. supra.), but is quite easily distinguishable from the true organic variety by the fact that if the patient's foot be slowly dorsi-flexed one can feel the patient commencing the Clonus himself by pressing down against one's hand with his foot, whereas an organic Ankle Clonus requires a sharp upward jerk of the foot before it will commence.

(d) Intention tremor but not usually so pronounced or so characteristic as is found in Disseminated Sclerosis.

Note IV. Total absence of wasting; careful measurement of the two limbs soon settles that question.

Note V. No loss of tone in muscles. No flaccidity. (Rigidity is commonly present, but is not the spasticity found in organic disease but is due to spasmodic contraction of opposing muscles.) No Reaction of Degeneration.

Note VI. Electrical reactions unaltered. The battery, however, is rarely needed for Diagnostic purposes and is seldom of much use in Differential Diagnosis except in those instances (for which one must, of course, be constantly on the look-out) where there is an organic condition present with a superadded functional one. Reaction of Degeneration is never present in a case unassociated with organic disease.

Note VII. Condition of reflexes. Reflexes are never altered or abolished in a functional condition. If a Knee Jerk, Ankle Jerk, or Epigastric reflex be absent the case is not a functional one, or, at least, is not purely functional. There is a prevalent idea abroad that the Babinski sign (or dorsi-flexion of the great toe on stroking the sole of the foot

with a blunt object) is sometimes present in Hysteria. This has been conclusively proved to be unfounded by results of examination of a large number of cases studied, amongst others, by Dr. Edwin Bramwell. A positive Babinski absolutely precludes a functional cause - it always means a Cerebro-Spinal organic lesion.

Note VIII. Areas of anaesthesia. One's attention is immediately struck by the regular and symmetrical distribution. Very common forms of Functional Anaesthesia to take are:-

- (a) "Glove" anaesthesia in Hysterical paralysis of the hand. Patient cannot comprehend a segmental and anatomical distribution of a nerve and consequently his zone of anaesthesia corresponds to his idea of a hand.
- (b) "Stocking" anaesthesia - similar distribution in the foot.
- (c) Hemianalgesia which is complete - that is it exactly divides the body from the top of the head downwards into two totally different halves. On the one side of the middle line the patient feels quite well, on the other he feels nothing at all. The anaesthesia also extends to mucous membranes, e.g., the tongue and palate are exactly different-

radiated into aesthetic and anaesthetic sides. Even supposing one would meet a case of organic disease which would produce such symptoms one would expect, and invariably find, that there would not be such a strict demarcation into sensible and insensible areas; that in passing from one side to the other there would be considerable overlapping between the different areas; that between the totally anaesthetic and the quite normal side there would be a central zone of blunted sensibility. Finally, anaesthesia does not follow the distribution of the Paralysis.

N.B. On testing for anaesthesia, though it may seem very pretty and a great help to map out beautiful "stocking" or "glove" anaesthesias, it is not in the least necessary for arriving at a definite conclusion with regard to the Diagnosis and it ought to be avoided in the majority of cases as being too liable to confirm the patient's ideas concerning his condition! In fact many people go so far as to affirm that these areas are produced by the physician who first sees the case.

Again in testing anaesthesia do not commence at the periphery of the limb and work upwards, but rather at the proximal part and work down.

If one follows this procedure one finds that the level of the anaesthesia is more distal than if one works the other way. Don't ask the patient if he feels this "sharp" or that "blunt", but get him to himself describe what he feels. ~~Janet's~~ Janet's method of testing anaesthesia is often useful: if the patient is told to say "Yes" when touched, and "No" when not touched, it will frequently happen ^{that} the answer "No" is given as often from the anaesthetic side as "Yes" is from the aesthetic.

Note IX. There are a few subsidiary signs in functional cases which might conceivably be of use in a doubtful case.

(a) Beevor in his Croonian Lectures of 1903 notes that if a patient is asked to try and flex his paralysed limb there is a prior contraction of the antagonistic muscles before the prime movers - that he has never observed this phenomenon in any other condition than Hysterical and Functional Paralysis, and ventures to conclude that this is an undoubted diagnostic symptom.

(b) If an organic paraplegic patient in bed is asked to bend the body upwards from the waist without the assistance of the arms the paralysed leg is

raised. In functional conditions, as in the normal, the paralysed leg does not rise in bed as the legs are actively extended at the hips in order to provide a fulcrum for the contraction of the muscles of the abdominal wall. Again, as first demonstrated by Dr. Edwin Bramwell, if an organic spastic paraplegic subject is seized by the ankle as he is lying in bed and the limb forcibly abducted the other limb follows it round, whereas in a functional condition, as in the normal, the other leg does not follow suit.

- (c) All the joints distal to the one affected are also involved which is not found in organic conditions.
- (d) The site of the Paralysis, e.g., Bilateral wrist-drop, is practically never functional. The commonest cause of course is Lead poisoning which invariably picks out the Supinators. The wasting of the latter can be easily demonstrated by flexing the arm against resistance. Again, these muscles shew the altered electrical reaction of degeneration.
- There is a fact in connection with the Differential Diagnosis between organic and functional palsies at the wrist which is often useful. The extensor muscles of the hand, contrary to what one would expect, play a great part in flexion. They fix the

wrist and so allow the flexor muscles to have more play. In organic cases, in asking the patient to grasp an object firmly with the hand, the latter flexes at the wrist to a greater degree the harder the patient attempts to grasp. In functional cases on the contrary, the extensors being as good as ever they were, the hand does not turn in at all when a similar act is performed.

- (e) In cases of Hysterical Ankylosis of a ~~joint~~ joint a good X Ray photograph and an examination under an anaesthetic are often of the greatest service and should never be omitted.

CAPUT III.

The following series of cases are illustrative of what one might term "General Functional Conditions". They all exhibit something in common. Though the condition in all of them undoubtedly commenced relative to some specific organ their whole mental outlook in the process of time has become warped and their symptoms of disordered sensation have become generalised.

In all of them some definite cause could be assigned for the onset of the trouble - shock at deaths of near relatives; overwork in a too conscientious individual; as the result of sheer debility after some insidious disease such as Influenza etc.; operating on a debilitated nervous system either acquired or congenital.

I. CASE OF MISS M----- D----- Aet. 29.

COMPLAINT. Nervousness. Four Years.

FAMILY HISTORY. Father very nervous individual.

PERSONAL HISTORY. Always been of Nervous temperament.
Easily frightened and excited.

PREVIOUS ILLNESS. Operation for "Floating Kidney"
four years ago.

PRESENT ILLNESS. Since operation has done no work. Very weak and listless after operation. Nervous breakdown four months later. Appetite always poor; nausea after food with feeling of distension in stomach. "Fluttering" of heart. Ringing noises in ears. Feeling of pressure over vertex. Sleep broken. Bowels very irregular. Periods irregular. Has dread of meeting people. Imagines her stomach has lost its power of absorbing nourishment.

STATE ON ADMISSION. Typical thin neurasthenic. Poor muscular development. Continually jumping at slightest noise. Pale and anaemic. Old scar of renal operation in Right Lumbar region. Marked tremulousness of tongue and eyelids. Furred tongue. Nervous excited heart. Refuses food.

ON EXAMINATION. Nothing found organically wrong.

Case of Miss M. D. contd.

DIFFERENTIAL DIAGNOSIS from possible Hyperthyroidism,

but no enlargement of Thyroid, no Exophthalmos; no

Tachycardia; no Von Grafe's sign.

TREATMENT. This patient rapidly responded to treatment and went out five weeks after admission practically better than she had ever been in her life. She had lost all traces of nervousness, had put on a good deal of weight; was able to concentrate her faculties on whatever work she had in hand. For general treatment she had rest in bed, overfeeding - especially being allowed to drink as much milk as she liked - daily general massage of the limbs and trunk. Medicinally she had a thorough course of Bland's pill for slight anaemia present on admission consequent on her having practically starved herself prior to coming under observation. General bitter tonics were also employed as well as a course of Hypodermic Injection of Strychnine Hydrochloride commencing with gr.1/60 once a day and increasing the dose every second day by a 1/10 until the maximum dose of gr.1/10 daily was being administered when the dosage was gradually decreased in same ratio as it has been increased.

Case of Miss M. D. contd.

COMMENTARY. In the absence of any discoverable organic lesion her symptoms were undoubtedly functional. Her trouble dated to a period four years ago when she was operated on for "Floating Kidney" - that fruitful cause of Neurasthenic symptoms in the female! She was probably run down at the time and the worry etc. incidental on a major operation operating on a hereditarily weak Central Nervous System (her father, as noted, was a very nervous individual) caused her present symptoms.

II. CASE OF MRS. M----- N----- Aet. 49.

COMPLAINT. Pain in stomach; flatulence twenty-two years duration.

FAMILY HISTORY. Nothing of interest to note.

PERSONAL HISTORY. Condition has been present for last twenty-two years. Always of a nervous disposition and never very strong physically. Contrary to Doctor's orders nursed her first baby and exhausted herself thereby. First thing she noticed was that she had marked loss of appetite and distaste for food. "Food lay on her stomach like a stone". Considered that her stomach would not digest solid food and so had lived on semiliquid foods for years. For the last three months has been greatly troubled by flatulence.

STATE ON ADMISSION. Intelligent, middle aged woman. Typical neurasthenic. Very jumpy and nervous when asked questions. Marked trembling of eyelids. Continually ~~guf~~ gulping down wind - confirmed "Wind-sucker".

PHYSICAL EXAMINATION. Nothing organically wrong was found.

DIFFERENTIAL DIAGNOSIS from possible Neoplasm - but stomach contents N. as tested by Test Meal. No loss of weight. Nothing to be felt on palpation and, the strongest point of all, the long duration of twenty-two

Case of Mrs. M. N. contd.

years. Again, no actual pain, vomiting, or haematemesis.

TREATMENT. Rest in bed. Assured there was nothing organically wrong with her and that she could be quite easily cured. The "wind-sucking" was successfully stopped in two days by means of a cork between the teeth, which prevented her swallowing air. Commenced with milk diet only and diet gradually increased every second day. General tonics and general Massage for fifteen minutes daily. In four weeks from admission patient was discharged cured. Had never been so well in her life, and eating practically anything and everything and had gained ten pounds in weight.

COMMENTARY. Naturally nervous individual in bad state of health through nursing her first child. Probably anaemic at the time with some slight dyspeptic symptoms and flatulence. Later, on recovery, symptoms persisted, distaste for food, wind-sucking, and under the impression she could not take meat or other solid food.

III. CASE OF MRS. J----- W----- Aet. 30.

FAMILY HISTORY. Nothing to note.

PERSONAL HISTORY. Breakdown after Influenza in 1914.

Was feeling very weak after Influenza and during convalescence she saw a bottle on the table and, though she knew quite well that it would do her harm, she could not resist drinking contents thereof. Swallowed acetic acid and was accordingly sent to Montrose Asylum for a time. Quite well after discharge. Married at Christmas 1918 and her husband, who was a soldier, had to return to his regiment a few days afterwards. He died suddenly two months later and this, of course, was a terrible shock to her with the result that all the previous symptoms recurred.

SYMPTOMS. Very depressed. Very emotional. Maintains that her throat and alimentary canal have never been right since swallowing the fluid. Constant reiteration of this fact. Gives good account of her history and quite aware that she was in Montrose Asylum. When she eats feels choking sensation in throat and consequently eats very little. Losing weight as she is starving herself. Very self centred and egotistical. Always feels her back cold.

Case of Mrs. J. W. contd.

Constant regrets for incident. Lying in bed she often experiences rushes of blood up each side of body which meet on vault of head with noise like thunder! No actual pain on swallowing but "dead" feeling in throat and stomach.

ON EXAMINATION. Tall well developed woman with no obvious ^{Morbid} marked condition present except Neurosis. Nothing to be made out on physical examination which was very thoroughly carried out and included an extensive examination with the Oesophagoscope, which only revealed, however, a tiny scar at the entrance to the Gullet. This had undoubtedly been produced by the slightly corrosive action of the acetic acid and clearly proved that what she was suffering from was, in reality, a "Habit pain", as one might term it. This little scar was doubtless painful at first and must have healed rapidly, but the thought of the original pain at that site became persistent and occupied too large a part of her daily thoughts and became nothing more nor less than second nature! One realised that if the habit of thinking over this trifling circumstance could be broken the patient would get quite well. Accordingly, she was reassured as to her general condition and the sequence

Case of Mrs. J. W. contd.

of events was fully explained to her. In addition forced feeding, general tonics etc. were employed to get her into the best condition of general bodily health. She rapidly improved and went out at the end of a month completely cured of all silly ideas and having gained six pounds in weight.

IV. CASE OF MRS. E----- N----- Aet. 45.

FAMILY HISTORY. No record of any Mental trouble in family.

PERSONAL HISTORY. Married. Eight children all alive and well.

COMPLAINT. Pain in head and stomach - ten months' duration.

PREVIOUSNESS ILLNESSES. Severe Influenza one year ago, followed by nervous breakdown. Five months in bed. Recovery.

PRESENT ILLNESS. Always of nervous temperament. Constant dull pressure pain on vertex accompanied by noises and singing in head preventing sleep. Frequent flushing of face. Pain in stomach with feeling of distension. Pain has no relation to food. Frequent in morning - no sickness - nothing to suggest organic cause for pain. Pain in lower part of spine over sacrum when she tries to stand up from sitting position. Other systems thoroughly examined - nothing found. Periods still regular.

TREATMENT. This patient likewise rapidly improved under the usual treatment of rest, general massage, tonics, suggestion etc. She made a splendid recovery in about three weeks and gained half a stone in weight during that time. The flushings of the face had also ceased, for which the Bromide and Arsenic Mixture -V. infra.- proved extremely useful. The pressure pain on the vertex and the pain in stomach and back had likewise totally disappeared.

Case of Mrs. E.N. contd.

COMMENTARY. The condition was undoubtedly a functional one - the result of a generalised debility following Influenza.

V. CASE OF MRS. McA----- Aet. 36.

FAMILY HISTORY. Nothing of note.

COMPLAINT. Pain and flatulence for twenty-two years.

PREVIOUS ILLNESSES. Nil, but has always been of a worrying disposition; easily excited and upset by trifles.

PRESENT ILLNESS. Commenced, she says, twenty-two years ago after the sudden death of her father from Smallpox which he had caught from an infected house during the course of his duties on the staff of the local Health Department. Immediately after his death every time she sat down to a meal the thought that her father was not sitting beside her to partake of the food upset her and everything she swallowed began to "be like a stone" in the stomach. Flatulence also became troublesome. The result was that she gradually gave up eating solid food and confined herself to a liquid diet. Three months from commencement she was admitted to R. I. E. and remained in for three weeks. During this period she gained some six pounds in weight and her general condition would seem to have improved, but the local condition was no better. She has gone on

Case of Mrs. McA. contd.

more or less in the same way for all that lengthy period and she has lived on liquid food for many years now. Pain is constantly there. Has now no relation to food. No history of ~~of~~ sickness or vomiting or anything suggesting an organic cause. Has tried Baking Soda frequently and found that it "broke the wind". Always very excitable and easily worried. Flushes easily. As a rule appetite is quite good and the desire to eat present, but she is afraid to take any solid food for fear of causing exacerbation of the pain. During the last three months she has had many troubles to worry her with the result that there is a corresponding change for the worse in her general condition.

STATE ON EXAMINATION. Small, sallow, thin, grey haired woman of poor muscular development, who looks a great deal older than her real age. Marked trembling of eyelids and sharp staccato way of answering questions. Weight ~~xxxxxxxxxxxxxxxx~~ 6 st. 11 lbs. Test meal showed the presence of free Hydrochloric Acid and the total acidity was rather high. Stools were examined several times for occult blood and found to be negative every time. X-Ray examination was also negative beyond

Case of Mrs. McA. contd.

the fact that there was some slight degree of dilatation of the Gastric Organ - most likely due to secondary atonic changes in the stomach wall.

Thorough examination of all her other organs was also negative.

DIAGNOSIS. Careful examination having failed to shew any organic basis for the condition one can only conclude that the condition present was a Nervous Dyspepsia. Always nervous and apt to worry. The shock of her father's death and his absence from his customary place at the table had caused her to have a revulsion at the sight of food, and what she was able to swallow remained undigested and lay "like a stone" in her stomach. Doubtless, as the years passed, the gastric musculature underwent secondary atonic and atrophic changes with the result that it was actually unable to digest solid food at all.

DIFFERENTIAL DIAGNOSIS. Every other probable or improbable gastric condition had of course to be excluded before giving a final Diagnosis. The most important of these

1. Ulcer of the Stomach was excluded by

(a) History.

Case of Mrs. McA. contd.

- (b) Age.
- (c) No history of vomiting.
- (d) Pain no relation to food.
- (e) Examination of stools for blood negative.
- (f) X-Ray examination.

2. Malignant Disease for the following reasons:-

- (a) Duration.
- (b) No loss of weight.
- (c) Free Hydrochloric Acid present in quantity.
- (d) X-Ray examination.
- (e) No occult blood in stool.
- (f) Nothing to be felt on palpation.
- (g) No vomiting.

3. Dilated Stomach by the atypical history with no vomiting of basins full of sour smelling, decomposing food; and again by X-Ray and Bismuth meal.

TREATMENT. Her whole condition and the circumstances pertaining thereto were carefully and fully explained to her. She was impressed with the idea that there was nothing radically wrong with her, and that if she did what she was told to do and always kept before her eyes the fact that she would get all right everything

Case of Mrs. McA. Contd.

thing would be well. She was anxious, however, to remain under observation only for a week and then go back to her housework. She was informed that nothing would be done for her and nothing could be done for her unless she delivered herself over to the Physician entirely for a month at least. After some consideration she agreed to do this and by the end of the month she had made a complete recovery and was eating meat three times a day without the slightest discomfort - a thing she hadn't done for over twenty years. She also put on nearly ten pounds in weight. She was commenced on milk alone and day by day this was gradually increased in amount. Semi-solids were the next addition to her menu and gradually diet was worked up to ordinary full diet. At the same time she had fifteen minutes general massage daily. Tonics were administered, bowels regulated and her general condition in every way attended to. She made such excellent progress from the very commencement that there was no need to isolate her. The weekly increase in weight impressed her and as her general bodily condition improved it reflected itself on her general outlook on life.

Case of Mrs. McA. contd.

She felt she was getting stronger every day and that the promise that her condition would be materially improved by the end of the month would be fully justified. She departed at the end of the month cured.

VI. CASE OF M----- M----- Aet. 40.

FAMILY HISTORY. Father was an exceedingly nervous man.

COMPLAINT. Flushing. Palpitation. Pain in head. Four years' duration.

PRESENT ILLNESS. Commenced about four years ago. She had been nursing both her parents, who were bedridden at the same time, and exhausted herself by overwork. Her father and mother eventually died and this was a great blow to her as she was deeply attached to them. Since that time constant fits of depression. General health previously had been fairly good though she had never been robust, and, even as a schoolgirl, had been reckoned nervous and highly strung. Had to leave her work in printing mills two years ago because she felt she couldn't do the work. Has had constant trouble and worry to make both ends meet. Very irritable and easily annoyed. She has often had to get up during the night and stop the clock from ticking! Sleeps badly. She would like to meet people and then when she does and begins to speak to them she becomes nervous and agitated and wishes she had not seen them. Constant waves of flushing over face, feeling of palpitation and tightness across the chest. Perspires a great deal

Case of M.M. contd.

during the day, especially in the axillae and face. Has great difficulty in concentrating and feels as if the top of the head was held in a vice! When she attempts to walk quickly she feels as if there was someone holding her back. Frequently cannot recollect what she wants to say. Memory for past events good, but not for present. No history of vomiting. Vision sometimes blurred with flashes of light before the eyes. Periods irregular, especially latterly; has been troubled with Leucorrhœa for some years. Great deal of pain at menstrual ~~period~~ epoch. Appetite poor; bowels very constipated.

ON EXAMINATION. All systems quite normal, organic disease excluded.

DIAGNOSIS. Nuerasthenia.

DIFFERENTIAL DIAGNOSIS. Such a diffuse variety of symptoms does not coincide with those of any recognised clinical organic condition. It was undoubtedly brought on in a naturally nervous individual by overstrain and overwork.

TREATMENT. General tonic including Strychnine. Mixture of Bromide with Arsenic which is exceedingly useful in checking flushing. Plenty of good food. Attention

Case of M. M. contd.

to Vaginal condition. Patient was ~~was~~ under treatment for nearly five weeks. Made an excellent recovery when she found there was nothing to worry about. Discharged fit. Her general~~y~~ health on discharge was excellent and her ~~and her~~ weight had increased from 7 st. 13 lbs. to 8 st. 6 lbs.

VII. Case/

VII. CASE OF MISS M----- S----- Aet. 38.

FAMILY HISTORY. Bad. Father was a very nervous individual; Mother is in an Asylum; one brother congenital idiot.

COMPLAINT. Nervousness for six months.

PERSONAL HISTORY. Has always been of nervous disposition.

Engaged in Domestic Service. Had been in service in Leith, but had left six months or so prior to being seen. In this place the mistress had gone on holiday and she was left in charge of six young children who proved too much for her. She felt she was not in her usual health and not in a fit state to look after them. Grew exceedingly irritable and depressed. Sister made her leave and obtained another situation for her, but this she soon left as she thought she had not treated her former mistress well in parting from her. Very restless and couldn't concentrate attention on anything. Noise of any kind upset her. Evidently a very conscientious woman, but she felt there was something wrong and was constantly worrying herself about her own mental condition whenever she reflected upon her family history. Often fits of crying. Bowels irregular. Sleep broken.

Case of Miss M. S. contd.

Pain on vertex of head. Flushes easily. Eyes have rather a "hunted" look.

TREATMENT. Patient was kept in bed for a fortnight. Thoroughly overhauled and reassured both as to the soundness of her physical condition and also ^{as} to her mental. Attention to colon. Plenty of good food with simple Iron and Quinine tonic worked wonders and she went out at the end of a month greatly improved. Mental outlook much cheerier. General health better in every way. Put on several pounds in weight.

COMMENTARY. This case was a straightforward one. Worry, as regards the state of her mind, overwork, ill-health, had all had ^hteir effect on a Central Nervous System which was hereditarily weak.

It will/

It will be seen that the foregoing all complained of a similar train of symptoms:-

- (1). General nervousness, Debility, easily tired, easily worried by trifles, irritable, inability to concentrate attention, listless, unable to work.
- (2). Palpitation, breathlessness, pain over the heart usually just under the situation of the apex beat, feeling of tightness across the chest.
- (3). Flushing of face, waves of blood rushing up over head.
- (4). Headache - especially pressure pain over vertex.
Noises, buzzing etc. in ears.
- (5). Disordered alimentation. Loss of appetite, furred tongue, distaste for food, nausea after eating, occasional vomiting, marked bouts of flatulence, chronic constipation, loss of weight.
- (6). In women - uterine irregularities.
- (7). Sensation of heat and cold. Many complain of certain cold spots between shoulders, down back etc. which no organic condition would explain.
- (8). Areas of tenderness in various parts of the body over the situation of the Ovaries, under the Mam-mae etc.

Of course any one of the above could well be accounted for by an organic disease and it is only by taking a general survey of the facts, after the

greatest possible ^{care} has been taken in the elimination of organic disease, that one can safely diagnose the condition to be Functional.

Again the general appearance of these patients to the trained observer is often of the greatest assistance in giving a clue as to the ultimate Diagnosis. Many of them have rather a "hang-dog" expression. Eyelids drooping and tremulous. Tremor of hands and tongue. Sulky, fitful, egotistical in demeanour, full of their own complaints, they answer questions in a listless manner. Nothing is so encouraging in ~~the treatment~~ the treatment of these cases as to see them losing their characteristic facial expression, to see the eyelids returning to normal, the patient no longer looking at you through half-shut ^{eyes}, the general brightening up and increased look of intelligence in their faces.

The great majority of neurasthenic patients are thin because they starve themselves, not that they have lost the desire for food and have no appetite, but because, in the peculiar mental state in which they are, they like to attract attention to themselves and delight in being coaxed and wheedled. It has recently been put

forward that there may conceivably be present an anaesthetic condition of the gastric mucous membrane.

When one reflects on the curious anaesthesias one sees on the external aspects of the body, the anaesthesia of the mucous membranes of the mouth, tongue and pharynx in a Hemianalgesia; it is quite probable that there may equally well be a similar disordered condition present in the stomach wall.

Caput/

CAPUT IV.

The following are the main points to be observed in the treatment of Functional cases. It is not necessary very often to apply them all. In no case of the number quoted above was it necessary to make use of all the measures here noted. Unless the case is a marked one, strict isolation, for instance, is not absolutely essential. Again, electricity is of very little use in the majority of cases, so that one must be guided in the treatment by a general survey of the patient's salient symptoms and by one's experience.

MAIN POINTS TO BE OBSERVED IN THE
TREATMENT OF FUNCTIONAL CONDITIONS.

I. MAKE A THOROUGH EXAMINATION.

This can not be too often emphasised. Examine the patient from top to toe in the most efficient and painstaking manner. Eliminate every source of a possible organic lesion, which might, conceivably, be at the root of his trouble. For instance, one has seen a man on the point of being diagnosed as a Functional case when he had an obscure Thoracic Neoplasm. Always be on the outlook for signs of organic disease. Take for instance nystagmus - marked nystagmus is never functional (one occasionally sees slight nystagmoid movements as a Trade Neurosis for example among coal miners who work continuously in a bad light) but the condition is never marked nor persistent. Again, always examine the Fundus Oculi; the importance of the latter forming part of every routine examination cannot be overestimated. One has seen a man with a slight headache, who, if the examination had not been

made would have been sent away as probably purely Functional, whereas, on examining his Discs, he was found to have a double Optic Neuritis, and this was the only sign of organic disease present.

One must always bear in mind that these patients have an extraordinary faculty for picking up false impressions from practically any source, which, in an ordinary individual, would entirely escape observation. Accordingly, having satisfied oneself that the condition is a Functional one, examine him once thoroughly (paying particular attention to the site of local pain, or disordered sensation, of which he complains) and never examine him again. Otherwise, if he is re-examined at any odd time, he may readily receive a false impression to the effect that the Doctor has forgotten to perform some necessary part of the examination; that the Doctor still has some doubts in his mind as to whether there may not be, after all, some organic condition present; that he does not thoroughly understand the patient's case; and this idea once fixed in his mind is practically ineradicable and one might as well save one's time by not attempting to treat him at all.

Undoubtedly many Functional conditions are perpetrated in Consulting rooms by medical men. Make sure of one's ground and give the patient a straight answer. Do not answer evasively as that will only confirm the patient's impressions. To be perfectly candid, members of the Profession have so trained themselves to pass ~~the~~ examinations with the minimum amount of requisite knowledge and have spent the greater part of their youth in answering evasively and in acquiring practice in bluffing examiners as to the tremendous amount of their knowledge, that in later life they are utterly incapable of giving a straight answer to a plain question!

The ideal treatment for all these cases is undoubtedly the "Weir-Mitchell" treatment, but this presupposes an elaborate organisation, a multitudinous staff, and last, though not least, a fair proportion of the good things of
 ^ this world on the part of the patient. But the excellent principles embodied in the "Weir-Mitchell" method, with slight modification, can be adapted to the needs of the class of persons one meets with in general practice in this country. For at least the next ten years to come one ought to be prepared to treat the enormous number of chronic Neurasthenic cases created by the recent war, and, as most of these cases will be drawn from classes which cannot afford the

"Weir-Mitchell" treatment, one has ^{to} modify and adapt the treatment to the circumstances of the cases one is going to meet.

II. ATTITUDE OF PHYSICIAN TO PATIENT.

The Physician must realise that in these functional conditions he is up against a definite entity. Too many of the profession, of whom one saw many cases in the Army, more especially amongst the Surgeons, failed to realise that the patient was ill and classified him immediately as a Malingerer. That is the first and one of the most essential points to realise - the difference between a Functional condition and Malingering. If the case is a mild one and being treated at home take the relatives into your confidence and explain to them clearly beyond the possibility of doubt how the case stands. This is too often done in a half hearted manner with the result that the friends interpret the warning to mean that the patient is labouring under delusions, or is malingering, with fatal results for treatment if reliance is being placed on them for aid. The Physician must gain the patient's complete confidence and he must be educated to have faith in his Doctor. There is no use in attempting treatment at all if the patient, from the very commencement, takes up an attitude of resistance. A judicious

mixture of discipline and sympathy is the ideal attitude for the Doctor. Let the patient see that you are taking an interest in his case and are determined to effect his cure - never allow him to think that you have lost faith in his ultimate recovery. Point out and illustrate to him daily what progress he has made in the twenty-four hours. In one's daily routine interviews with a functional case, never leave without demonstrating his improvement to him, be it ever so slight. This, in most instances, will mean only a minute or two, although on the other hand, in an obstinate case, it may take three-quarters of an hour of persistent reasoning to bring conviction to the patient's mind; in any case ~~ixixx~~ the result will justify the trouble taken. Another great point is the Weight Chart. Practically all these cases, under proper and skilful treatment, shew a weekly increase in weight. Demonstrate this to the patient and assure him that there can't be much wrong with him when he is putting on flesh to such an extent. One point to note, however, should the weight have dropped owing to some such condition as an intercurrent attack of Diarrhoea, is never to try to deceive the patient. Inform him of the fact that he has lost some weight and give the reason for it - the majority are quite satisfied if a simple and logical explanation is afforded them.

Never lead the patient to think that in your opinion there is nothing wrong with him. Such an attitude defeats its own object and leads nowhere. Rather impress upon him that you can get him well in a very short space of time - that what you require is his co-operation. Unless the patient gives the latter voluntarily, and promises to do his best to help you, it is much better to leave the case alone, as you will be certain to make nothing of it. Shew him that he is not so bad as he thinks. Always be cheerful and good tempered, and humour him as far as possible.

III. REST IN BED.

This should be complete and as thorough as possible - the patient not being allowed up even to go to stool. They should also be fed in the supine position. All patients shew a remarkable improvement after a week or two in bed. They become less restless, the morbid flushings of the face disappear, and the palpitations of the heart settles down. They begin to sleep well and naturally at night. Cut off from excitement of every kind one finds that in their mental attitude they become quieter, more rational, less irritable and less excitable, and their particular "phobia" becomes less pronounced.

IV. ISOLATION.

IV. ISOLATION.

Isolate patient as thoroughly as possible. In an ordinary Medical ward this can often be done quite effectively by screening ~~by screening~~ the bed for a certain time until he shews signs of improvement. The prospect of the removal of these screens in the near future has a most stimulating effect on the mentality of the average patient. Allow no correspondence or reading matter of any kind. Allow no visitors near the bed, and so contrive to alter the patient's general mentality that he is stimulated to aid himself towards recovery - he begins to "wish" himself well - by a desire to be freed from these provoking restrictions. The promiscuous herding together of these cases in Neurasthenic Hospitals as was done by the Military authorities is absolutely hopeless. They confide in one another, discuss and re-discuss their mutual symptoms, the amount and probable duration of their pensions, and receive fresh impressions of their illness from every quarter. Isolation, to be of service, must be thorough, and orders regarding same strictly carried out - otherwise the excellent effects of the method are rendered null and void.

V. DIET.

Most of these neurasthenic individuals are of thin, spare, ascetic build; appetite is gone; they have no desire for food. Frequently they are under the impression that their Alimentary canal has lost its absorptive and digestive powers. Very occasionally one meets with "Fat Neurasthenics", but here their general appearance is not consonant with their poor appetite.

Diet must be of most generous nature. In cases with marked digestive symptoms commence with milk, half a pint every four hours, and gradually increase until they may be taking anything up to six or eight pints a day. In cases with no marked gastric disturbance the diet can be increased straightaway. Give plenty of fats in the shape of cream, butter, and cod-liver oil if the patient can take it. N.B. The weight should be frequently charted and shewn to the patient. A Nitrogenous diet, especially in a case with associated secondary anaemia due to habitual semi-starvation, is much more ~~satisfactorily~~ satisfactory than a Carbohydrate one. Small and frequent meals are preferable to larger ones at long intervals.

VI. SUGGESTION AND PERSUASION.

(A) SUGGESTION. The efficacy of this procedure depends wholly for success on the personality of the Physician and consequently, as one would expect, the results published vary considerably - Janet, for example, reports sixty per cent cures, whilst of recent writers on this subject, Yealland, who was in charge of the Military Hospitals in London for such cases during the late war, achieved one hundred per cent, but the latter is undoubtedly most exceptional.

In employing it, endeavour to have the patient in a state of absolute physical and mental relaxation. make him comfortable on an easy couch and attempt to get him into a state of mental abstraction. Then give suitable suggestions which will reach the patient's mind because of his abstracted and absent-minded state. The treatment may be briefly summed up in this statement - " The whole thing is the man and not the mechanism". Every Physician who inspires confidence in his patient unconsciously and reflexly gives that patient suggestion.

(B) PERSUASION. Take the patient in hand and outline to him briefly and simply the origin of his present condition. Make him understand that there is nothing

radically wrong with him and persuade him that there is no reason why he should not completely recover.

VII. PSYCHO ANALYSIS.

This method, likewise, in the hands of certain men has given phenomenal results, but, in others, it has utterly failed. It has been ~~greatly~~ greatly boomed recently, but, as a matter of fact, it is as old as the hills!

As the term suggests it is an endeavour to analyse the complex state of the patient's mind. The Physician reviews the symptoms of the case and endeavours to trace back through the various alternating phases of the patient's symptoms to find the fundamental "Phobia" which originally gave rise to the condition - the patient being aided or compelled by the Doctor to recall the events in his life associated with the onset of his illness. This is often extremely difficult, and, in many cases, is rendered hopeless by the fact that the patient himself has actually forgotten the very often trivial circumstances which in the first place produced his symptoms.

If, however, one can ~~actually~~ lay one's finger as it were on the actual "Phobia" which produced the condition the results are often very satisfactory and one can point out the circumstances to the patient,

explain to him how all his present symptoms ensued from that particular time, logically point out to him how he can completely recover and what pitfalls to avoid in future.

A good example of this method in use is that furnished by the case of Mrs. McA----- §(V. supra.). There was no accounting for her gastric symptoms (and likewise no prospect of a cure) until, after great difficulty, the fact was elicited that the first symptoms were caused by the poignant thought of her father's sudden death when she noticed his empty place at table. This association of her father's death and the taking of food became rooted in her subconscious mind and was unconsciously revived every time she sat down to meals. As noted above, when this fact was elicited and it was logically, clearly and carefully suggested to her that her present train of symptoms were secondary to that one idea she made a rapid recovery.

~~VIIIXXXXXXXXXXX~~

VIII. MASSAGE, ELECTRICITY AND EXERCISES.

Massage and Electricity have been boomed lately, especially in palsies, as the sole treatment for Functional conditions. This is quite erroneous. They are exceedingly useful adjuvants in keeping up the patient's nutrition

and general condition and can be well used as aids in suggestive treatment, but their usefulness ceases there. It is quite useless to endeavour to cure by Massage alone, even although the procedure may be intelligently carried out and accompanied by encouragement to voluntary effort, for, granting that a slight degree of progress may thus be achieved, the treatment can not be continued long enough to stabilise it and by the time ^{the} next seance is due the whole process has to be recommenced.

~~KNASSEKEX~~

(A) MASSAGE. This should be used in combination with isolation and rest in bed to take the place of the ordinary muscular movements and exercise taken when an individual is up and moving about. It should be general and seances should not last more than from twenty to thirty minutes daily at the commencement, and then the duration should be gradually extended until one hour daily is being given. It is wise in a very marked case to confine ~~oneself~~ oneself for the first week to the extremities, following on with the trunk muscles later. As to the time to be spent on any particular part the following time-table may be useful:-

Deep breathing and massage round the back and below the ribs three to four minutes; then legs ten minutes each. Upper limbs five minutes. Then turn the patient

over on face for kneading, hacking and clapping of the back for ten minutes - including the loins and gluteal regions. Then the chest for five minutes and the abdomen for from seven to ten minutes; the latter should be very thoroughly done to ensure a daily evacuation of the bowel, as constipation is so marked a feature in this condition.

(B) ELECTRICITY. Electricity is only of service in cases of Paralysis. Successful treatment with it does not depend on the instrument used but rather on the personality and character of the man who employs it. In addition to great powers of persuasion and the happy knack of obtaining the patient's confidence, he must possess tact in abundance, sympathy, any amount of determination and good temper, all combined with the patience of Job!

There is no need to make the slightest mystery about it nor to take up the attitude of the charlatan in one's dealings with the patient - use the ordinary Faradic current obtained from a simple battery and apply over the motor points of the muscles. Point out to him that his muscles are still alive and able to contract - that he is holding the wrong muscles ^{tight} and relaxing the proper ones - and so endeavour to get

him to make voluntary contractions at the same time that the muscle is being stimulated. It will generally be found that the patient becomes much impressed thereby - that he begins to be interested and his apathetic frame of mind changes to one of gratitude and exaltation. The amount of pain that one is going to make the patient suffer is a moot point and one that must be judged in the light of experience and after a wide survey of his general condition. If he is emotional and bears pain badly one would naturally not use so strong a current as in the case of a more phlegmatic and apathetic individual. Having once got him started to make voluntary movements, harry him, and give him no rest until all the movements are normally reproduced.

(C) EXERCISE.

Having successfully obtained normal movements it is necessary to re-educate the muscles further and teach again the sense of limb movements by some such means as Frankel's exercises as used in Vabes, for in many of these paralytic conditions the patient has actually forgotten how to use the limb. On further recovery nothing can excel some light form of manual labour in the open air whereby the patient's interest becomes aroused and the muscles are exercised automatically

and unconsciously - always remembering, however, to stop short of causing fatigue.

In psychical conditions when general massage is stopped and the patient allowed up, it is an excellent plan to make them do a little light housework. (This is, of course, in reference to the female sex, because when all is said and done, the majority of these general cases are met with in women). Give them plenty of knitting and sewing to do. If their powers of concentration are bad give them something to read and learn off by heart, or give them some simple reading and writing exercises to do. Anything of that nature will serve, the sole object being to divert their minds from the old channels, to prevent them from brooding over their misfortunes and past conditions, and to re-educate their attentive powers.

IX. DRUG TREATMENT.

This is entirely secondary to moral treatment. General tonics are always useful. A bitter infusion with Strychnine, such as:-

Acid. Hydrochlor. Dil.	m $\overline{\text{XV}}$
Tinct. Nux. Vomica.	m $\overline{\text{V}}$
Inf. Gent. Co. ad	$\overline{\text{Zij}}$

given before meals is of very great service in stimulating appetite.

Iron salts if any anaemia present.

In paralytic cases there is nothing to rival Strychnine Hydrochlor. gr. 1/60 hypodermically once a day and increasing by a 1/10 every second day until 1/10 gr. daily is being administered. Keep this dosage up for a week or less and then reduce dose every second day in the same ratio as it was previously increased. Strychnine, however, one is often inclined to think, does not do well with the victims of a general psychical disorder, as it seems to increase the sensitiveness of the cerebral cortex to peripheral stimulations and for such a Quinine and Iron Mixture is invaluable.

The majority of these cases are exceedingly constipated, and, as the effects of chronic constipation in dulling intellect, lowering vitality and impairing nutrition are too well known to require recapitulation, it is the obvious thing to do to thoroughly clear out the colon by repeated enemata and then insure a regular daily motion by abdominal massage combined with a stimulant laxative - than which no better can be had than Ext. Cascarae Sagradae in simple mixture, or, the Dry Extract combined with Hyoscyamus in the form of a pill. For the frequent flushings of the face and pain over the vertex so frequently present a very effective mixture is the

following:-

Ammon. Brom.

Liq. Arsenicalis

Aq. Menth. Pip ad

grs.
m.ij
ʒij

t.i.d. p.c.

Another extremely useful sedative is Hyoscine Hydrobromide given by the mouth, e.g. gr. 1/8 in a six ounce mixture practically equals 1/200 gr. Commence with the latter dose night and morning, and, if necessary, it can be increased up to gr. ~~1/80~~^{1/80} three times a day. Be careful in its use however, as it is a potent drug. During its administration the patient should be kept in bed and a sharp look out kept for dilation ^{at} of the pupils which is the first sign of poisoning. A Hyoscine delirium may rapidly ensue if care is not taken.

Valerian and Assafoetida have long enjoyed the reputation of being most valuable in the treatment of this disease, but to be of any use they must be given in doses much above the usual amounts - a drachm of Tinct. Valerian Ammon. t. i. d. Or again, Valerian may be given as a pill:-

Zinc Valerian
 Quinine Valerian
 Ferri. Valerian $\bar{a} \bar{a}$ gr. \bar{j}
 Ext. Valerian qs, misce. *Sig. Una tid p.c.*

Both the above drugs are commonly, but erroneously, regarded as part of the moral treatment of the patient by making him swallow something nauseous and disgusting. They really play no part in moral treatment, but do good by diminishing hypersensitiveness of the peripheral nervous system (Hale White) and so causing sensory stimuli to have less effect on the acutely sensitive and unstable nerve centres.

Needless to say Alcohol, Morphia, Cocaine,

Chloral and other drugs of like nature must always be avoided, as the Drug habit with all its concomitant consequences is only too easily acquired by these cases with their enfeebled will power.

Sleeplessness is another curse in these cases. One should always be careful to ensure a thorough night's rest. If this does not follow naturally, as the result of the slight over-fatigue produced by massage and exercises, one has to resort to hypnotics. There is no need to go farther than Paraldehyde administered in anything up to a four drachm dose. It is invariably safe and certain without unpleasant after effects, and, owing to its obnoxious taste, it is unlikely to lead to the formation of a Drug habit.

X. TREATMENT OF HYSTERICAL FIT.

Clear the room of all relatives etc. who are likely to prove a sympathetic audience. Various methods have been suggested for cutting short the attack. Some work well in one case, some in another:-

- (1) Firm pressure with both thumbs over the supra-orbital nerve in the supra-orbital notch
- (2) Deep-seated pressure over the ovaries, but this is likely to leave the patient in a very excited condition afterwards.
- (3) A douche of cold water whilst the Physician declares in a loud voice that it will be repeated if necessary!

- (4) Inhalation of Amyl Nitrite, or Liq. Ammon. Fort.
- (5) Application of Corrigan's Button.
- (6) Electricity is always of use if near at hand.

Place one electrode over the front of the neck and the other over the Epigastrium and administer a sharp, interrupted current. This often stops all manifestations in a few minutes. It has no such effect in Epilepsy and, therefore, in a doubtful case, this might assist in making a positive Diagnosis, and so strengthen the Physician's confidence in proceeding with moral and suggestive treatment.

For Hysterical vomiting use peripheral counter-irritation - a mustard leaf applied to the Epigastrium, or a few light touches of Corrigan's button. Finally, attend to all sources of possible peripheral irritation - menstrual irregularities, decayed teeth, enlarged tonsils, adenoid growths etc.

XI. DIFFERENTIAL DIAGNOSIS.

This though comparatively simple in many cases, for example in the Palsies, is often extremely difficult in many of the ^{psychical} ~~physical~~ conditions. Practically every phenomenon of organic disease may be simulated in a more or less rough way by hysterical conditions and one has to learn from clinical experience how much reliance to ~~place~~ place on certain facts, how to judge ~~their bearing on the case~~

their bearing on the case and how to recognise which facts can be discarded as of no significance at all. A safe general rule to follow is never to diagnose a Functional condition until every possible Organic one has first been eliminated.

Even in one's own small personal experience it has been found that there are three Organic conditions that are difficult to differentiate from Functional.

These are:-

(1) Disseminated Sclerosis in its earlier state where there is simply weakness and paraesthesia of the legs without any extensor response, although the history may afford some guidance here; the patient gives what may be termed a "switchback" history - quite well at one period and then the trouble started. Recovered completely and again recurrence of the disease followed by recovery once more and so on. Again note the condition of the superficial reflexes especially the abdominal; an absent reflex means Organic disease. Never neglect to examine the Fundus Oculi. Pallor of the disc is one of the characteristics and early signs of the disease and often gives one the clue. Nystagmus, too, is practically always present and more or less marked. The absence of the epigastric reflexes in con-

junction with the nystagmoid movements, weakness of the legs etc. therefore point to a widespread Organic lesion.

(2) Sydenham's Chorea. In this disease it is usual to find a Cardiac condition present. A history of sore throat, growing pains, or Rheumatic fever gives one an inkling of the true condition. The constant grimacing, wriggling, squirming movements, as John Wyllie called them, are likewise never so well imitated in a Hysterical condition. Again the Choreic Facies, to the trained eye, is almost unmistakable.

(3) Subacute Combined Degeneration of the Cord in its earliest stage with nothing more present than weakness of the legs. But here note tendency to spasticity of the gait. The alteration of the abdominal and plantar reflexes; the presence of persistent ankle-clonus and ataxia. Sphincter trouble. Pallor of the skin and mucous membranes. The early pernicious changes in the red blood corpuscles.

XII. PROGNOSIS.

Prognosis in all ~~these~~ Functional cases is a matter of the greatest difficulty. A guarded Prognosis should always be given to the patient's friends as recurrence is so likely to occur. Never give the patient himself,

however, other than an excellent prognosis. Assure him that he is cured and that his condition is practically certain never to return. If possible point out to him where he went off the rails before and the best course to follow so as to avoid anything of a like nature in the future.

XIII. RECOVERY.

When can one say definitely that the patient is cured? Once one can get the patient's outlook on life brightened up, when he begins to lose his "dour" and sulky look, when one notices that his eyelids are not drooping to such an extent as previously, when he begins to take an interest in his treatment and voluntarily expresses a desire to get well, one may safely assume that he is on the fair way to recovery, and that with patience, attention and the re-doubling of the Physician's efforts one can predict with certainty an absolute recovery.

(1) In Paralytic Cases one assumes recovery:-

- (a) When the patient possesses free movement and normal use of the limb.
- (b) When all trembling, jerking or choreic movements have ceased.
- (c) When anaesthesia or other disordered sensations have disappeared.

(2) In Psychic Cases recovery is complete:-

(a) When the patient can fix his attention easily, voluntarily, and continue to sustain it.

(b) When he can read, write etc. with his conscious sense.

(c) On the disappearance of all silly ideas and delusions.