symptoms of calculus either in the kidney or ureter surprise us by the negative results obtained from an *x*-ray examination. The disturbance of innervation may cause what is most easily explained on the theory of ureteric spasm, but whatever the mechanism be, it is pretty certain that the symptoms produced by a renal calculus can be very faithfully mimicked by a disturbance of nerve function.

In people who are neurasthenic and thin, and particularly in women who are of this type, the right kidney is apt to become more or less loose. Whenever such a woman has the misfortune to fall into the hands of some one who, having discovered it, solemnly pronounces a verdict of floating kidney, she is at once launched on a sea of countless troubles, and frequently, having sought relief from one form of treatment after another, at last ends in a nursing home, where she is promised a permanent cure by having her wandering kidney firmly stitched to her side. Though such operations are in some instances desirable and successful, in the majority the subsequent relief is small, and in not a few the net result, so far as the nervous system is concerned, is to make bad decidedly worse. The one event in such cases which ought to remove all opposition to operative treatment is the occurrence or threatening of a hydro-nephrosis.

The evidences of a highly strung nervous system furnished by the uterus and ovaries are too numerous to admit of discussion here. They are responsible for much personal misery and domestic discord. The frequency with which elaborate local treatment of one kind and another has become fashionable raises doubts in the minds of many as to its wisdom—even as to its justification. The removal of an ovary, often for a problematical reason; uterine douchings and curettings; vaginal packings; and all the rest of it, may succeed in relieving the local "congestion" which is supposed to be responsible for the dragging pains, the excessive menstruation, and the failure to conceive. But what about the effect upon the nervous steadiness and general tone of the patient? The question in this wider aspect is probably not always seriously enough considered, but if greater attention were given sufficiently early to the maintenance of the central nervous system in a condition of robust and self-reliant integrity, and to the regulation of daily habits of life on lines of greater simplicity and homely regularity, the need for most of such treatment would vanish, and it would be found again, as in the days of our grandmothers, that the pelvic organs, in the absence of actual organic disease, might with advantage be left in most cases to look after themselves.

PRACTICAL HINTS ON FUNCTIONAL DISORDERS.

BY

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EIGHTEEN months' service has convinced me that much harm is done by failure to recognize psychical disabilities which, though sometimes so extraordinary as to deceive the most wary, should generally be diagnosed by any one who is awake to their possibilities.

Tests of sensation should be applied where there are not enough signs fully to account for all disability present. I have formed the habit of testing every case I see and have thereby often arrived at an unsuspected diagnosis.

Such a test is that for hysterical anaesthesia: every man with a weak or paralysed limb should be tested with light pin-prick. If there is numbness or the prick is not felt as a painful sensation, the area of anaesthesia should, if organic lesion be present, follow the anatomical distribution of a nerve or nerves; if the anaesthesia ends at one level, like a sleeve or stocking, it is almost certainly hysterical. To confirm this, the upper limit should be marked with a pen; then the observer starts again at the periphery of the limb and works upwards in a zigzag; this time the limit will probably have shifted downwards for an inch or two and repeated tests will bring it still lower. Moreover, tests with pin, cotton-wool, and pressure will, especially if the patient is allowed to watch them, all show anaesthesia ending at the same level; this never occurs in nerve lesions, and with the zigzag test should serve to

eliminate those rare cases in which—so neurologists tell me—a root lesion of the brachial plexus gives an anaesthesia of the sleeve type. The patchy alterations in spinal cord disease should not cause doubt, though one meets hysterical anaesthesia of a proximal part of a limb—for example, from the elbow to the shoulder.

The principle of the zigzag test should be understood; localization of a peripheral stimulus is not perfect, and by the zigzag approach the patient is led to feel that a greater distance in a straight line has been covered, hence he thinks the original spot has been reached when the pin is perhaps two inches or more distal to it.

If the altered sensation depends upon a genuine lesion, the sense of localization is not called into use and therefore cannot be deceived; but one must remember that with a true slight alteration of sensibility the answers of a patient may not always be consistent. With a complete loss of sensation in a peripheral nerve the boundary, if the patient is intelligent, is constant.

If a total loss of sensation is claimed the Yes-No test is available. The patient is made to look at the ceiling and answer quickly, saying "Yes" when he feels a touch, and "No" when he does not. When touched on the anaesthetic area he may say "No," thus demonstrating that he really does feel; a smart man will say "No" once or twice only, or may shape his lips for the word and then arrest it when he realizes the trap, but one of duller understanding will answer "No" at repeated examinations without seeing his foolishness.

Hemianaesthesia of the body and limbs is frequent; a patient treated for rheumatism of the left arm and leg, with a trip to Droitwich thrown in, had hemianaesthesia involving the tongue and palate, with concentric diminution of the visual fields. For eight months the treatment had been carried on, whereas a pin would have settled the diagnosis in so many seconds. Similarly a patient with chorea of two months' standing, and regarded as seriously ill, with one side paralysed, fell to the Yes-No trap, and after a strong suggestion was able to get up and make his own bed.

Unless there is some special reason to the contrary, pain produced by pressure is not accompanied by hyperaesthesia of the skin over the same area. Thus a gonorrhoeal knee, a tuberculous elbow, or a joint inflamed by rheumatic fever may be exquisitely tender to pressure with the finger, but to light pin-prick it may be even slightly anaesthetic owing to subcutaneous effusion. Exceptions to this occur in appendicitis and other abdominal conditions, where areas of referred pain coincide with those of deep tenderness; in basal pneumonia with referred pain in the abdomen; in dental conditions, where the jaw is tender and superficial hyperaesthesia is felt along the fifth nerve; in scars involving a nerve; and probably in many conditions which I know not, but which should always be capable of explanation in anatomical terms. Therefore a sprain of the back, where pressure with the thumb and light pin-prick cause pain over the same area, may be regarded as psychical. A "rheumatism" in the calf with pin-prick pain needs explanation, and a sprained ankle which reacts similarly should be exercised at once.

The zigzag test may be applied to these conditions, especially "sprained backs," where the limit may be shifted by as much as six inches.

A fallacy must be guarded against; the man with a painful joint will expect a pin-prick to be painful, and his apprehension must not mislead. The existence of deep pain and superficial pain over different areas may be diagnostic of true disease.

A man who claimed to have hurt his neck was suspected of malingering. His neck was rigid, and he declared that movement was difficult and painful; there was pain to pressure in the side of the neck, with no superficial tenderness; the distribution of the great occipital nerve was mapped out by pin-prick hyperaesthesia, though pressure on that area was painless. Such a combination would never be imagined by the lay mind; in fact, the man was surprised when his symptoms were demonstrated: a diagnosis of a fractured articular process was made.

To differentiate between conscious and unconscious simulation is necessary but often difficult; sometimes the hysteric is a good fellow who deserves more sympathy than is consistent with cure; sometimes he resists all treatment and may openly say that he has no wish to be well, but, as

Sir John Collie points out, it is hard to distinguish between "Not able to be willing" and "Not willing to be able."

"Paralysis," "paresis," "neuritis," "nerve concussion," are terms which often hide the truth. The last was introduced by Sir George Makins to describe a definite lesion of a peripheral nerve, generally caused by a rifle bullet; I have heard it misused often—for example, in neurosis of the leg with stocking anaesthesia, following a kick on the shin.

It is in connexion with wounds that what may be called surgical hysterias most often occur, and are most often overlooked. There are present nervous strain, maybe a suppressed emotion (of fear?), a wound, and then well-deserved but ill-directed and harmful sympathy. If we add to this a false diagnosis of organic disease, even the best and bravest may develop a hysterical condition. It is striking to meet a patient who presents the classical signs of such a state, whose illness has dragged on for months, and who recovers before one's eyes when he is told the truth. Such cases are rare; intelligence, desire for cure, and a belief in the surgeon are requisite. Here is an example:

An officer was wounded in the right arm; the musculo-spiral nerve was sutured, and he was treated by massage and electricity for seven months (for this I was partly responsible). His hand and forearm were then as if carved from wood, without movement, and anaesthetic. He was to appear before a medical board in a fortnight, and feared being invalided out of the service. His condition was at last recognized, a straight talk followed, and the board passed him as fit for general service, even his musculo-spiral nerve being found to function perfectly. The faithful carrying out of massage and electrical treatment had helped to keep his muscles in order, but I believe such treatment may be harmful if not accompanied by mental therapeutics. One sees cases like this where treatment has only confirmed an obsession.

A psychical is often added to an organic disability.

A man received a wound involving the metatarsal bones, and after five months he walked on crutches with the knee flexed and the foot dropped. There was contraction of the calf muscles, causing equinus deformity, and the anterior tibial group was apparently paralysed. When the faradic current showed the patient that his extensor muscles could contract, he was soon persuaded to use the foot and discard his crutches, but a true lameness persisted, due to the metatarsal injury.

In another case a hysterical "wooden" hand and forearm recovered under mental treatment till a median paralysis revealed itself; an electrical examination would have shown the hidden lesion.

1. *Talipes Varus*.—Among types which occur with sufficient frequency to be worth special mention is talipes varus.

One man appeared before a medical board using crutches and wearing an elaborate and expensive orthopaedic apparatus on his right leg. His papers gave a diagnosis of "talipes varus following osteo-arthritis," and he was recommended for discharge as permanently unfit. He had been in hospital three months. His foot was in a position of extreme varus and hyperaesthetic to half-way up the calf. His crutches and instrument were taken away and strong suggestion was applied. Cure was difficult owing to the fixity of his obsession and the previous treatment, but he was sent out in two months with a plantigrade foot and walking perfectly.

A similar case was treated by tenotomies with a bad result.

A third case opposed all treatment and was invalided out with a correct diagnosis, of which his friends were informed. He was cured somehow, perhaps helped by the absence of a pension and of family sympathy, and re-enlisted.

2. *Tilted Pelvis with Scoliosis and Apparent Shortening of a Leg*.—This deformity can be produced at will.

One man who had worn a surgical boot for a year and been regarded as permanently disabled was cured by five minutes' talk.

Another case was reported, with illustrations, in a daily paper as the marvellous cure of a short leg by a German method of crawling exercises. The man was shown triumphantly holding up his boot, but still wearing a surgical jacket for his scoliosis. His cure seemed to be a fortunate accident.

To this group will be added some of those men in blue one sees near convalescent homes, walking with a stick and swaying the body at every step.

3. *Paraplegia after Shell-shock*.—This may occur in a genuine form, but the following presents little room for doubt:

The patient had been invalided for a year; he now walks bowed and with two sticks; puts his weight on his toes; the

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feet are swollen from disuse. No other physical signs, but plantar reflexes and knee-jerks are feeble; other reflexes normal. Anaesthesia of Yes-No type up to the groins.

4. *Frostbite*.—Although the possibility of organic anaesthesia of stocking type must be admitted on account of the nature of the trauma, yet the writer believes that this case is typical of many and is truly hysterical:

Frostbite contracted in 1914. On examination in June, 1916, the toes were kept dorsiflexed, though they could be bent down against the resistance of the muscles. The feet were blue—a common condition in psychosis—and anaesthesia shifting four inches to the zigzag test was present half-way up the calves.

5. *Rheumatism* is nearly always a conscious simulation:

A man had been disabled for a year and walked stiffly with a stick, but looked fit. His leg muscles were well developed, and he had recently "barked his shins." There was pain to pressure on his thighs and also to pin-prick; joints healthy. He was reported on as a malingeringer.

6. *Aphonia*, with whispering voice. There is often hyperaesthesia or anaesthesia in the front of the neck. Accounts in lay papers of these men being cured at picture shows are to be understood when a "pachydermia of the larynx" is cured by one dose of the faradic current.

7. *Abdominal psychoses*, often with vomiting and hyperaesthesia over all the belly wall. If such cases are treated as serious disease they become very difficult to handle.

CONCLUSION.

I would urge that a careful watch should be kept for these cases when they begin. I have only seen one at its origin and succeeded in checking the symptoms at once, but if I were to give an estimate of the number of developed and unrecognized cases I have met the reader would be incredulous. There is no mystery in the diagnosis; ordinary methods of examination supplemented by sensory tests detect the majority of them.

In every injury the extent of possible movements should be early ascertained, and if there are no contraindications those movements should be strongly encouraged. That is good surgery and sound psychology; the lack of such treatment is shown in the case of a man sent to hospital as "old fracture of clavicle, pressure on brachial plexus." He made no attempt to use the arm or hand whilst undressing; all movements could be performed feebly but equally well, and there were no sensory changes. The fracture, which had been plated, was 5 months old, and he had apparently never been made to use the arm.

The number of cases I have seen within a small area indicates how serious is the subject. A man whose functional disorder is diagnosed as organic will probably be a cripple for the rest of his life; the longer he remains under the shadow of a wrong diagnosis the harder will be the cure when, and if, his true condition is recognized. Thus a useful man is lost to the nation and a useless man has to be fed.

A SWISS military medical mission, comprising eight officers, is now in this country, and will visit the military prisoners' camps in order to make a selection of sick German prisoners to be interned in Switzerland.

THE Royal Mail Steam Packet Company has found it possible to resume its fortnightly service between New York, West Indies, and Colon, commencing on December 2nd. The ports of call will be Santiago (Cuba), Kingston (Jamaica), Colon (for Panama Canal and Pacific ports). The round voyage will occupy twenty-three days.

OFFICIAL Italian reports state that the sanitary condition of the concentration camps in Italy where the Austro-Hungarian prisoners are interned are most satisfactory. Owing to the bad health conditions of the Austro-Hungarian armies, all the men taken by the Italians in recent engagements are subjected to rigorous hygienic supervision before being sent to the camps.

It was reported at the meeting of the London County Council on October 17th that the number of cases then being dealt with under the Mental Deficiency Act at the expense of the local authority for London was 1,049 (497 males and 552 females). Since the Act came into operation notice has been received of 736 other cases in which defect was alleged. The greater number of these are still under consideration, or have been definitely ascertained as not defective, or not subject to be dealt with by the local authority.