Further on, in Dr. Fischer's essay, he speaks of a "tough, fibrous mass" connecting the two layers of cartilage and "sometimes presenting cartilaginous and osseous deposits." This is precisely what I have found in the present case.

The conclusions to which the appearances point are briefly these. In the first instance, when effusion takes place, there is separation of the perichondrium from its cartilage; the former then develops fresh cartilage from its inner surface, and thus there come to be two layers of cartilage, containing between them the products of effused material; these, after a time, seem to consist chiefly or entirely of fibrous tissue. It seems to be a question whether this tissue may not be regarded as forming a new perichondrium upon the inner surface of the cartilage; at all events, in the present case, this is the tissue from which the bone has been developed; and at other parts it contained new cartilaginous deposits. I cannot help doubting whether the bone that is sometimes found in these cases is ever developed from the fibro-cartilage. The ear now described was certainly affected with true hæmatoma, as it was observed throughout its course by Dr. Shaw, who has kindly supplied me with the notes given above. In examining the ear, I did not find any blood-crystals, such as are often seen in old apoplectic clots.

With regard to the suggestion of Dr. Needham in the JOURNAL of July 5th, Dr. Shaw wishes me to say that the only case of recovery after hæmatoma that he has met with was one of short duration. It occurred in a man who was in a county asylum, and the subject of "recurrent mania." He had once been discharged cured, but was readmitted in a state of considerable excitement. After a few months, and whilst he was still in a maniacal condition, a hæmatoma of the left ear appeared, which lasted about three months, and then shrivelled. The acute symptoms of brain-lesion disappeared, and he was discharged, being able to gain his livelihood. But after twelve months he was readmitted, and died shortly afterwards.

This would make it interesting to know whether the patient, whose case is related by Dr. Yeats, may not suffer a relapse. Dr. Needham has most certainly supplied a case of recovery for ten years; and all these three cases tend to show that the occurrence of hæmatoma is not of such immediately bad prognosis as some have believed.

RETROSPECTIVE JOTTINGS.*

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SPINAL AFFECTIONS (*continued*).

I REFERRED in my former paper to the paramount importance of securing, so far as is possible, a correct diagnosis in all cases of spinal diseases; and for this purpose, it may not be amiss to pass briefly in review the more prominent symptoms which help to distinguish spinal meningitis from myelitis.

We may notice, first, the comparative absence of head-symptoms in lesions of the cord, both meningeal and myelitic, unless these attack quite the upper part of the structure, when, of course, we may have phenomena which are more or less common both to cerebral and spinal disturbance. If head-symptoms, such as severe vertigo, convulsions, coma, etc., obtain, in addition to the more direct spinal ones, we have probably co-existing cerebral as well as spinal meningitis, rather than simple myelitis of the cord itself. As a rule, spinal meningitis more frequently attacks the upper part of the cord, while inflammation of its substance is more commonly seated in its lower dorsal and lumbar portions.

While noticing these conditions, we must not forget that symptoms of a cerebro-spinal character may, and do occasionally occur, having an entirely different origin. I particularly refer to those cases depending upon an extrinsic cause, whether arising from injury or poison; for example, the result of Bright's disease. A recollection of these facts is, perhaps, of more importance in reference to treatment than to diagnosis.

Another distinguishing symptom between spinal meningitis and myelitis is pain, the character of the pain, and its locality. Severe pain is a common result of spinal meningitis; and this is seldom confined to the spine itself, but shoots down the extremities, and is often aggravated to an almost unbearable degree by the slightest movement. In myelitis, on the other hand, pain is by no means a prominent symptom; and when it occurs, it is rather as a dull aching, referred to the seat of lesion, and increased by sharp percussion, but neither extending to the extremities, nor greatly influenced by muscular move-

ment. The constrictive band-like sensation around the waist which constantly accompanies myelitis, is described as a feeling rather of discomfort than of pain. When the membranes only are affected, this symptom is not complained of.

Paralysis is an important distinguishing feature between pure uncomplicated myelitis and spinal meningitis. In the latter, there is sometimes an appearance of paralysis; but on close investigation we shall find that it is the extreme fear of exciting pain by the slightest movement that renders the patient seemingly paralytic, while he possesses, if his resolution permit him to make the attempt, full motive powers over his extremities. In myelitis, on the contrary, the paralysis may exist to any extent from a slight dragging of one leg, to a complete paraplegic condition of both. The paralysis is attended by numbness and other disagreeable tingling sensations; and if the origin of the disease be traceable to intemperance, either in drinking or sexual intercourse, or any other cause especially producing spinal exhaustion, it may be preceded by uncontrollable restlessness and jactitation of the lower limbs.

Tactile sensibility and reflex function vary much in different cases of paraplegic disease. As a rule, reflex excitability is considerably weakened; but if the structure of the cord be entirely destroyed locally by a new connective tissue cementing its nerve-fibrils into a dense white mass, such as is seen occasionally after chronic disease, both in the brain and spinal cord, reflex action may exist in a normal degree, showing that the portion of cord below the diseased spot is free. This complete destruction of nerve-tissue commonly advances gradually, and consequently the loss of motion and sensational function in the limbs will be equally progressive, and, *pari passu* with the anæsthesia, become more or less complete.

The bladder and rectum are affected both in spinal meningitis and in myelitis. In the latter especially, imperfect control over the bladder is a marked and early symptom, and increases as the paralysis becomes more developed. When this is incurably established, increased exhaustion sets in, with difficulty of breathing, wasting of muscles, swelled extremities, and bed-sores, which latter are often an early and very troublesome indication of imperfect nutrition.

Among the causes of paralysis having a spinal origin, we must not overlook the fact of paraplegia occasionally having a reflex source, and arising from peripheral disturbance; yet it is sometimes admittedly difficult to determine at first whether some forms of paralysis have a centric or an eccentric origin. In the latter, or reflex variety, the nerve-excitator will be either an inflamed pus secreting bladder, or some organic uterine affection attended with unhealthy discharges. The chief diagnostic difference between reflex and myelitic paralysis, will consist in the incompleteness of the paraplegia, and the absence of those general symptoms of myelitic degeneration of the cord already enumerated. The amelioration or subsidence of the paraplegia, on the removal of the peripheral exciting cause, will further help to confirm the diagnosis.

The precise pathological condition of the cord and its membranes in those cases of contracted limbs, when the knees rest upon the abdomen and the heels are in close contact with the buttocks, has not yet been satisfactorily defined. It has hitherto been supposed that the spasmodic contraction was due to an exalted excitation of the anterior column of the cord, passing subsequently into structural change. More recent investigation would tend, however, to the belief that the excitator of the contraction is in the nerve itself, and that a portion of its fibrils have become degenerated in structure (sclerosed). It is not improbable that in some cases of chronic permanent rigidity and contraction of the lower limbs, a mixed condition may obtain, viz., thickened membranes from meningitis, a myelitic degeneration of the cord, and a local change in the structure of some portion of the nerves themselves. Further and extended minute investigation of the exact condition of the nerve-texture in those cases is still required.

Hysterical Paraplegia.—A woman, aged 30, the mother of three children, who was suffering from debility, the consequence of long continued gastric disorders, became suddenly and totally paraplegic in the lower limbs. She was in the ward of a hospital where was a patient also partially paralysed, but hemiplegic from cerebral disease. On examination, she stated that her limbs felt numb, and that she was totally unable to raise them in the slightest degree, and which appeared to be the case. There was in this case no tenderness over the spine, nor local nor general anæsthesia, and galvanic contractility of the lower limbs was unimpaired. The intellect was clear, and there was no muscular wasting. The catamenial functions were healthy, and there was no paralysis of bladder or rectum. The interrupted galvanic current was directed to the lower part of the spine and to the extremities on alternate days. Strychnia with steel and quinine were prescribed as medicine; and a firm injunction that she should herself make some daily effort to move her limbs, was insisted on, and well seconded by the firmness of the nurse. For a fortnight she remained with but very

* Continued from page 449 of last number.

slight improvement, when intelligence of the sudden illness of her husband was brought to her. From this period the lost volition was rapidly regained, and she made speedy and uninterrupted progress towards recovery, and returned home to nurse her husband fairly well.

There can be no doubt that the above case was simply one of perverted volition, excited, in all probability, by imitative impressions. Had the peculiar nervous predisposition of this patient been known, she would, of course, have been rigidly kept from what proved to her a source of excitement and subsequent irritation. There was no uterine disturbance in this case, and the symptoms supervened too suddenly, without proportionate nervous disturbance, pain, or other distress, to be attributable to an embolic clot. The paraplegia from the first was regarded as hysteric, and this was fully and most satisfactorily corroborated by the subsequent rapid recovery on the supervision of an antagonistic moral excitant. There are few cases more unsatisfactory to treat, more trying to the moral courage of the practitioner, or more likely to interfere with the confidence reposed in him by the friends, especially if the patient be in the higher rank of life, than hysteric paralysis.

This affection occurs, I believe, quite independently of the existence of any uterine or ovarian irritation. The exact condition of the intimate nerve-structure in this and kindred affections will become increasingly a subject for interesting investigation. The great influence exerted upon the capillaries through the vaso-motor nerve-filaments, and the effect which it may produce even upon volition, and some other moral phenomena, may help to explain by degrees many of the eccentric freaks which are now included under the unsatisfactory designation of hysteria. The diagnosis between real and ideal paralysis is not always easy, especially if the patient be seen for the first time after some weeks' or months' duration of the malady.

I need not say how important is a clear definition between the two; for, while on the one hand it would be cruel to accuse the real sufferer of fabricating a serious complaint, it would, on the contrary, be most highly improper and injurious to treat the simulated malady as real. In a recent number of *Guy's Hospital Reports*, Dr. Wilks has shown that there is a nervous influence constantly passing from the centres to the muscles during life, producing tension of their fibres; and that in real paralysis this tension becomes destroyed, and muscular power is lost. In feigned paralysis, on the contrary, muscular tension is preserved, while the will to exert the power of motion is more or less in complete abeyance. The knowledge of these different conditions is of considerable value as an aid to the diagnosis between real and feigned paralysis, and the extent to which the supply of blood is regulated in its passage to the nerve-centres by vaso-motor nerve-influences, and its power of contracting or relaxing the capillaries, will, when more fully investigated, throw increased light upon the condition of the molecular structure of the nervous centres generally in hysteria and other so-called nervous diseases.

More or less spinal irritation is generally associated with hysteric paraplegia; and some tenderness, or, it may be, acute local sensitiveness, is complained of in percussing the spine, together with flying pains in the legs and pelvis. Numbness of the lower limbs frequently obtains, and the bladder and rectum may temporarily lose their power. A peculiar dragging of the leg has been pointed out by the late Dr. Todd as characteristic of hysteric paralysis, in contradistinction to the semicircular swing of the affected leg seen in real paralysis. This suggestion is applicable rather to hemiplegia than to paraplegia. A carefully conducted series of experiments with the galvanic current in reference to electro-sensibility, electro-contraction, and muscular tension, with a view of testing their relative amount both in real and feigned paralysis, would prove a valuable aid in forming a differential diagnosis.

On the treatment of hysterical paralysis, in whatever form it assumes, there is but little to be said. The malady is essentially one of weakened or lost volition, and it is to moral measures that we chiefly must look to overcome this condition. Hence, the far greater benefit which results to a patient treated in a hospital, where all is regulated with firmness and method, as compared with the management of a similar case in her own home, especially if the patient be subjected to the baneful influences of the false kindness and exaggerated sympathy of unwise friends. In the one case, the lost volition will become restored in a comparatively short time; while in the other, as is too frequently the case, the patient remains in fair health, but with the affected limbs perfectly immobile, notwithstanding the attendance of a succession of doctors, special and otherwise; and she is perhaps ultimately doomed to months of mechanical fixedness for a supposed spinal disease.

As a rule, the general health in these cases remains fairly good; but should it be otherwise, general principles must be adopted, and especially cod-liver oil given if it can be digested. Galvanism, inasmuch as it will tend to direct attention to the limbs, and thus perpetuate an

ideal malady, had better, as a rule, be avoided. As already hinted, however, moral measures must be chiefly relied on, and so far as possible, the constant attendance of a medical man should be discontinued. To effect this, however, is by no means easy, and it is only by the firm co-operation of sensible friends with the medical attendant that this can be attained. The patient must be treated firmly and kindly, and told with all honesty that, unless she be determined to remain a permanent paralytic, a visible improvement, however slight, and that effected by her own efforts, must be perceptible at the end of each week.

The allowance of a simple unrestricted diet, and the avoidance of all unnecessary, and especially periodical medication, will prove additional auxiliaries to completing the moral cure.

CASE OF CUT-THROAT WOUND OF INTERNAL JUGULAR VEIN: LIGATURE: RECOVERY.

By JOHN WOODMAN, F.R.C.S. Eng.,

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On August 14th, 1873, between 5 and 6 p.m., I was hurriedly called to see Mrs. Henley, the matron of the City Workhouse, aged about 30, who, I was informed, had been attacked and nearly killed by an inmate, called Thomas Snelgrove (who was seized in the act). On my arrival, about ten minutes after the occurrence, I found her seated in a chair in the kitchen of the infirmary (to which she had run from the ward in which she was assaulted), her clothes saturated with blood, her head supported, and pressure being made over the wounds with an apron. Finding that the hæmorrhage had for the time ceased, I had her carefully removed in the chair to her own apartment. On examination, I found she had three slight cuts on the face, six wounds on the neck, and three cuts on the fingers of the right hand (caused in the struggle); all these wounds were such as would be inflicted by a razor, the instrument said to have been used. Of the wounds in the neck, two were slight, three severe but not dangerous, whilst the principal one was situated two inches and a-half below the left ear, and extended three inches across the throat to the cornu of the hyoid bone. I was putting sutures in the other wounds, and had nearly finished, when suddenly an alarming gush of venous blood took place from this wound, which I controlled by pressure with my finger. Feeling sure that the internal jugular vein must be wounded, I sent for assistance, and in the meantime examined the wound, and found that the external jugular vein, the auricularis magnus nerve, and the sterno-mastoid muscle, were completely divided, and that with my finger I could feel the anterior spinal muscles; the external and internal carotid arteries were also to be felt uninjured. On the arrival of Mr. Roper (Senior Surgeon to the Devon and Exeter Hospital), we had some difficulty in finding the exact spot from which the hæmorrhage came, as when I moved my finger the bleeding was very alarming. I managed, however, to get my finger higher up in the wound, still compressing the vein, and then, on carefully sponging it out, I saw a distinct slit in the internal jugular vein, about half an inch in length, in the direction of the course of the vein, and at a right angle to the external wound; we were then able to move the descendens noni nerve out of the way, and to pass a ligature around the vein below the wound, but now the difficulty was to pass one above, as moving my finger threatened fatal hæmorrhage. This was met by seizing the wound in the vein with a pair of broad torsion-forceps, and holding the lips together. This nearly stopped the bleeding. We were now able to pass a ligature with an aneurism-needle above the wound. On tying both these, which Mr. Roper and I did simultaneously, the venous hæmorrhage was stopped.

Some arterial bleeding from a deep source now gave us considerable alarm in her weak state, but fortunately pressure and ice stopped it also. Besides the two ligatures on the vein, only one small artery was tied, the others being treated by torsion. The external jugular vein did not give any trouble, and was not done anything to. Mrs. Henley appears never to have quite fainted, or to have entirely lost her consciousness; which is surprising, considering the quantity of blood she lost and the shock to the nervous system.

I and my pupil, Mr. H. Baber, remained all night with her, but there was no return of hæmorrhage; she vomited several times, but else she passed a favourable night, and rallied considerably for thirty-six hours after the accident. One of Mr. Roper's or my pupils was constantly in attendance, in case of a return of the bleeding.

Mr. Roper saw her in consultation with me for some time afterwards. At first she was very weak, but calm and collected; but on the fourth day (August 18th) she suddenly became feverish and troubled with pain in