backache, and shooting pains in the pelvis and down the thighs. The bowels were much constipated, and after an evacuation she suffered severe and prolonged pain. She had constant headache. The vulvo-vaginal aperture was occluded by a congenital fibroid-like and unyielding hymen. A semi-purulent discharge issued from the urethra, which was red and inflamed, and so patulous that the little finger could be easily passed into it. Through the hymen fluctuation was distinct, especially during straining or coughing. A rectal examination conveyed the impression that the vagina was filled with viscid fluid, which exercised considerable pressure on the gut.

On May 17th, 1873, after chloroforming her, a small exploratory trocar was pushed through the centre of the imperforate hymen, and a dark treacly fluid showed itself at the external orifice, too thick to flow through the cannula. The small cannula was withdrawn, and a larger trocar was introduced through the orifice already made; the fluid now slowly passed through the tube, aided by gentle but firm pressure, until the fluid, becoming more inspissated, almost ceased to pass. On withdrawing the cannula, a bandage with pads above the pubes was applied firmly to the abdomen, and the patient placed in bed. The fluid removed measured eighty-four ounces, and it was estimated that twenty ounces more oozed away during the subsequent fortnight. She progressed favourably until May 21st, 1873, four days after the operation, when she became very restless and uneasy with symptoms of general pyrexia, with abdominal pain and tenderness. It was found that the fluid had ceased to pass, although the parts were regularly cleansed with an antiseptic fluid. However, at the next syringing, the fluid, which had become intensely offensive, freely escaped; and then the feverish symptoms, and the abdominal and pelvic pains, which had continued for twenty-four hours, quickly subsided.

On June 14th, 1873, a probe was passed into the orifice already made in the hymen, and the opening was enlarged with bougies. The membrane was then divided obliquely downwards on each side of a bougie, and the aperture was still further enlarged by the introduction of the finger; very little hæmorrhage occurred. During the passage of the bougies, about two ounces of yellow purulent matter passed. The os and cervix uteri could not be made out by a digital examination. A second examination, made on June 24th, revealed the large and patulous cervix. The body of the uterus could be felt *per rectum*.

On June 25th, she commenced to menstruate; the flow lasted several days, and was of good colour. She left the hospital on June 28th.

For the following report of the fluid removed, I am indebted to my friend Dr. Mann. The fluid was of a chocolate colour, about the consistency of treacle, without odour, and of neutral reaction; specific gravity, 1055.

Microscopic Appearances.—Red corpuscles were present in various stages of disintegration; some were shrivelled, and assuming a granular appearance, as though undergoing fatty degeneration; others were almost of normal character. A number of highly coloured bodies were seen, which consisted of aggregations of red corpuscles matted together. On addition of acetic acid, they were resolved into individual discs; some of these bodies were spherical, reaching 1-1200th of an inch in diameter; others were of irregular outline. Epithelium was but sparingly represented; a few specimens from the vagina, in a state of fatty degeneration, being the only ones seen. White corpuscles and free fat-granules complete the list.

Spectroscopic Appearances.—A portion of the fluid being diluted with distilled water gave the absorption-bands of oxyhæmoglobin and hæmatin; the reaction was but slight, even when the solution was highly coloured. On adding a little of Stokes' protosulphate of iron solution, the bands of reduced hæmatin were developed with much more distinctness than the original bands displayed. A portion of the fluid being treated with acetic acid and extracted with ether, gave the bands of hæmatoin with great distinctness. The oxyhæmoglobin reaction was produced by the fresh blood which had been poured into the uterus at the last menstrual period; whilst the hæmatin reaction proceeded from that portion of the blood which had been pent up in the uterus for some time, this being the condition which the colouring matter of blood assumes in old blood-stains and in blood extravasated in the body and thus removed from the circulation.

These cases are always interesting not alone for their rarity, but likewise in consequence of the mortality attending the operation for the evacuation of the pent-up fluid. As to the treatment: in making the aperture, the incision, in the first instance, should be sufficiently large to enable the fluid to pass easily, the more complete division of the membrane being delayed until after the evacuation of retained fluid. After the withdrawal of the cannula, care should be taken to keep the opening patent for the free passage of the fluid, as the discharge, inodorous when first passed, soon becomes decomposed; it may develop symptoms of blood-poisoning. This fact was illustrated in a

small degree by the severe constitutional symptoms set up in consequence of the discharge having ceased to pass for a few hours, and the rapid disappearance of these ominous symptoms on the re-establishment of the flow. Some difference of opinion exists as to the advisability of making abdominal pressure to favour the passage of the fluid. I fail to see any objection to a gradual and increasing compression on the abdominal swelling during the passage of the bulk of the fluid. Pressure ought afterwards to be kept up by an abdominal bandage and pads. By this means a flaccid and over-distended uterus may thus the more readily contract upon its contents, so inducing a more regular and continuous discharge of the fluid, and perhaps a more rapid involution of the enlarged uterus.

A word in reference to the cause of the mortality in these cases. From observation of the causes of death after pelvic and abdominal operations, I would venture the opinion that the high death-rate in these cases is due to septicæmia, and not, as is generally supposed, to metritis or peritonitis.

HÆMATOMA AURIS.

By C. W. S. COBBOLD.

AS this subject has lately been brought forward in the JOURNAL by Dr. Yeats, I think it a fitting opportunity to record the following case, which occurred in the Metropolitan Asylum at Leavesden, under the care of Dr. T. Claye Shaw; together with the result of an examination of the ear after death. One point of interest in the case is, that it occurred in an idiot; whereas hæmatoma aurium has been spoken of more in connection with forms of unsoundness of mind other than idiocy and imbecility. Dr. Grabham, of Earlswood, however, has told Dr. Shaw that he has seen othæmatoma in three idiots (boys) under his care.

R. C., aged 27 years, was an idiot, quite unable to speak, understand the simplest questions, or attend to himself. A hæmatoma developed itself in the left ear about four years ago, in the usual way of an effusion in the fossa of the antihelix, and was in no way to be traced to injury or violence. After passing through the stage of effusion, absorption set in, resulting in the firm thickened structure which is familiar in these cases. The patient lately died from phthisis; after death, the cartilages of the nose and eyelids were found to be unaffected. The weight of the brain was 48 ounces, and its chief defect was in the posterior cerebral lobes, which, when *in situ*, failed to cover the upper surface of the cerebellum. At the *post mortem* examination, Dr. Shaw removed the external ear, and afterwards gave it to me to examine.

The usual thickening and unevenness of the cartilages were present, with an especially hard nodule in the position of the fossa of the antihelix. On section, the cartilage was seen to be split irregularly into two layers over a portion of the ear; these were separated, for the most part, by a fibrous structure; and at one place there was a small bony mass between them, about the size of a small pea, but flattened. This was the hard substance which had been plainly felt before the ear was cut into. I have made sections through this body, with the layers of cartilage on each side of it. Under the microscope it is distinctly seen to consist of true bone, with well-formed Haversian systems. The bone is very vascular and soft, owing to the large number of its Haversian canals; these run irregularly in all directions, so that no section of the bone could be said to be longitudinal or transverse, except with regard to particular systems. Its softness is sufficiently indicated by the fact of my being able to cut very tolerable sections with a large scalpel. Beside this bony development, there were, irregularly scattered about in the tissue between the two plates of cartilage, small isolated portions of cartilage, quite resembling in structure the normal cartilage of the ear.

I do not find, in the essays by Dr. Stiff and Dr. Nicol, any account of the *post mortem* examination of hæmatomatous ears. The observations of Dr. Fischer, in his essay, seem to be based upon such examinations, although it is not expressly so stated in the translation given in the *Asylum Journal*. He says: "Both cartilage plates (the old and the newly formed) are indurated and present ossific points." Dr. Yeats says, in his paper, that sometimes the cartilages are left "hard, as if they were ossified, although only very little thickened." Ossification of yellow fibro-cartilage, if it ever occur, must be extremely rare; this substance is not one of those from which bone is naturally developed, and I do not regard the present case as an instance in which it has been so formed. My sections do not present the appearances usually seen in ossifying cartilage; there is no arrangement of the cells in rows; and, in fact, the bone is nowhere continuous with the cartilage, without the interposition of a layer of fibrous tissue, from which the bone seems to be developed by a process similar to that of ossification in membrane.

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-tissue 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.