

place the palm on the top of the head. He fed and dressed himself.

The specimen of bone removed measured three inches and a half in length. It has on its surface three openings, two of which lead into cavities in the cancellated texture; the third passes through the upper part of the diaphysis, and through the epiphysis into the joint. There are several shallow carious pits on various parts of the surface. The bone is slightly bent, and at its middle is a mark which looks like the result of a fracture. Section shows numerous cavities in the bone. The glenoid cavity, I should have stated before, was healthy.

In this case, when expectant treatment failed (and how thoroughly hopeless it was the preparation removed shows), the operation performed was the only alternative to amputation; for had so long a piece of the bone been removed, in the ordinary manner covered with its periosteum, from a child of six years of age, one could not have hoped for anything better than a useless dangling limb, and it was only the prospect of the bone being reproduced that induced me to operate.

The boy is now at a distance from Carlisle, and I have not had the opportunity of seeing him lately, but his relations tell me that the arm is still gaining in strength and freedom of movement. For all actions below the level of the shoulder it is nearly as powerful as the other arm; he can, for example, wheel a barrow with half a hundredweight of coal in it. I have to-day (May 26th) received from the boy's friends the following measurements:—Left arm, shoulder to elbow, 8½ in.; right arm, shoulder to elbow, 7½ in. These show, during the last seven months, a slight increase in length of both arms, but a gain of a quarter of an inch more on the unoperated than the operated limb.

If it again fell to my lot to have the treatment of a similar case, in two respects I should act differently. In the first place, instead of attempting to remove the perichondrium, I would endeavour to leave a thin shell of cartilage wherever it was healthy. It would be much easier to do this, and much more likely to give a successful result. In the second place, I should by galvanism attempt to keep alive the contractile power of the deltoid. No doubt the paralysis and wasting of this muscle, which almost always occurs after excision of the shoulder, is due to injury of the circumflex nerve; and if the muscle were brought into regular action by the use of the current when the nerve recovered, it would find the muscle able and ready to respond to its dictates.

This case was well adapted for testing the value of the subperiosteal method of excision. While, on the one hand, the amount of diseased bone to be removed was very great, and involved the separation from the bone of many of the muscles which perform the most important movements of the arm, on the other hand, the origin of the disease was distinctly the result of injury, the boy's general health was fair, and he was of an age when reproduction is active. For M. Ollier has pointed out that, in reproducing bone, the periosteum is doing nothing else than continuing its normal functions, it being the main agent of the growth and nutrition of this structure. This explains why in young subjects bony reproduction is so much more active than in old, the membrane being most vigorous while the bone is still growing. It also explains why some bones and some portions of bones are better regenerated than others, the growth being most active where the membrane is thickest.

The result has been such as to make one think well of the utility of the procedure; for of three inches and a half of bone removed (nearly half the humerus), two inches and a half were reformed. The arm is a very useful one, and many motions are restored, although the insertions of the producing muscles were divided—as, for example, those producing rotation.

Carlisle.

CEREBRAL RHEUMATISM.

By CORNELIUS BLACK, M.D. LOND., M.R.C.P.,

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IN acute articular rheumatism, and especially when rheumatic pericarditis or endocarditis, or both coexist, cerebral rheumatism is not an unfrequent accompaniment in the more urgent period of the articular disease. It is manifested by a busy, talkative delirium, occasional disposition to leave the bed, flushed face not unfrequently bathed in perspiration, restless, sparkling eyes, and slight contraction of the pupils. With this form of cerebral rheumatism every medical practitioner is familiar. There is, however, another form of cerebral rheumatism which is probably of not less frequent occurrence, but which is not generally recognised, or if recognised, it has not, so far as I know, been described either in medical books or in the medical periodicals.

A case of this latter kind has very recently been under my care. The subject of it was a gentleman of middle life, of nervous-sanguine temperament, and of regular and temperate habits. From the age of fourteen to that of thirty-nine he passed through five attacks of acute articular rheumatism. In none of these attacks did the heart suffer. As in such subjects, so in him, migratory rheumatism was of frequent occurrence. In one such attack he suffered for some days from rheumatic pains in the ankles, loins, shoulders, arms, neck, and scalp, with no more marked disturbance of the health than a little indigestion. The urine was natural in quantity, deepish-yellow in colour, had a specific gravity of 1028, a strongly acid reaction, and deposited on cooling a large quantity of cayenne-pepper-coloured crystals of uric acid. About nine o'clock one morning, after expressing his freedom from rheumatic pains, he somewhat suddenly began to feel giddy and to complain of a sensation of weight and heaviness in the head generally and of a tendency to fall in whatever direction the head might be inclined. Occasionally the sensation of a *whiz* passed with electric rapidity through the brain from back to front. At other times a vertiginous sensation was referred to the vertex, when the gait became somewhat unsteady. His intellect was unclouded, he could indite letters as before, but if he had to think, his ideas soon became a little confused.

There was no increased heat of the head or of the skin generally, no nausea or vomiting, no injection of the sclerótica, no contraction or alteration of the pupils, no twitching of the muscles of the face or of those of any of the extremities. In one or two previous attacks slight twitchings of the muscles of the cheeks and of the brow had occurred, a common result of migratory rheumatism. The breathing was easy, regular, and the number of respirations seventeen per minute. The tongue was quite moist, but slightly furred, there was no thirst, the appetite for food was not sensibly altered, the bowels were regular. The heart and kidneys were healthy. The pulse, usually 70 in health, presented the peculiarity of now numbering only fifty-four per minute, a common result of depressed functional energy of the brain. It was regular, equal, soft, and rose beneath the finger with a slow, steady, measured beat. The quantity of urine voided within the first twelve hours was thirty-five ounces, but afterwards this proportionate ratio decreased, so that the urine did not exceed fifty ounces altogether for the first twenty-four hours. It was of a deep yellow colour, of acid reaction, specific gravity 1026, and was quite free from deposit after it had stood two days.

Perfect quietude was enjoined. Two pills containing two grains of calomel and eight of the compound extract of colocynth were administered, and their action was favoured by an effervescent draught containing tartrate of soda. Five liquid evacuations were produced. The general heaviness and giddiness of the head now merged into a sensation of diminished pressure over the left brow and an aching soreness confined to the left temple. This feeling shortly afterwards passed in succession to the muscles of the back of the neck, producing stiffness and more or less pain on motion—to the shoulders, wrists, back, thighs, and ankles, manifesting in each locality its usual character of rheumatism. With this transfer from the head the pulse rose

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The thirty-first annual meeting was held on the 2nd June, Dr. Frederick Kirkpatrick (president) presiding. We are happy to state that this deserving society is in a most prosperous condition, the total receipts from donations, subscriptions, and bequests during the year amounting to £2254. The applicants for relief numbered eighty-six, of whom seventeen were first applications, sixty-eight were from widows, and nine from medical practitioners.

to 62, 66, 70, 72; and the next quantity of urine voided let fall, on cooling, a somewhat copious sediment of urates, deeply coloured with the purpurates of Prout—the murexid of Liebig. For twenty-four hours this excretion of the urates continued, after which it gave place to an excess of both the alkaline and earthy phosphates, which continued for nearly two days. During this time the urine was natural in quantity, of a rich straw colour, specific gravity 1026, deposited on cooling a white woolly-looking sediment, and manifested an acid reaction, which was not at all influenced by the food taken. By heat the phosphate of lime was deposited in copious small balls and flakes, which were immediately dissolved on the addition of two drops of nitric acid, rendering the urine, as it is wont in such cases, brilliantly clear and of a faintly bistre tint.

Here, then, was a case of migratory rheumatism affecting the brain-substance and giving rise to symptoms simulating some of those premonitory of apoplexy. Its real character, however, was shown by the immediate supervention of cerebral symptoms on the subsidence of the rheumatic pains in the ankles and the disappearance of crystals of uric acid from the urine, and by the return of these pains to the neck, back, and limbs, and the deposit of urates and purpurates immediately after the head-symptoms had been relieved. That the whole cerebral mass suffered is rendered probable by the general feeling of heaviness over the head, by the giddiness and the sensation of a disposition to fall in whatever direction the head was inclined, by the inability to think without causing confusion of ideas, and by the slowness of the pulse.

For such cases I have generally found a smart purgation by calomel, colocynth, and tartrate of soda the most effectual treatment. Colocynth exerts a wonderful power in causing the elimination of uric acid by the liver. To this effect the tartrate of soda contributes; but it, like all the alkalies, also favours the excretion of uric acid by the kidneys. Calomel with colocynth, the alkalies, perfect quietude of both body and mind, and a spare diet, are consequently remedies to be adopted in all such cases.

Harley-street, W.

ON A CASE OF CÆSAREAN SECTION.

By D. C. NICHOLL, L.R.C.P., &c.

ABOUT 11 A.M. on May 5th I was called to see Mrs. N—, aged thirty, in labour with her fifth child. She told me that during the last year she had been suffering from occasional lancinating pains in the lower part of the body, which for the last three months had much increased in severity, and that the discharge, which had been frequently hæmorrhagic and watery, had now assumed a yellow appearance, and was very fetid. Complexion blanched and cachectic. Previous labours normal. I ascertained on inquiry that her mother had died of cancer of the womb. On making a vaginal examination, the finger entering about an inch came in contact with a hard, irregular, nodulated mass, which seemed to fill up the whole cavity of the pelvis, being firmly attached anteriorly and laterally. The pains being of an irregular character, and not severe, I gave her an anodyne mixture, and in the evening saw her in consultation with my partner, Mr. Fawcett, when a more thorough examination was made. The hand was then with difficulty pushed behind the tumour, and the os found lying high up above the promontory of the sacrum, fixed and dilated laterally, so as to admit four fingers, and the head presenting. The antero-posterior diameter barely measured one inch. The case being one of unusual difficulty, Mr. Maynard, of Wisbeach, and Dr. Lowe, of Lynn, were called in consultation; and, having discussed the case fully, we were all of opinion that the child could be delivered in no other way than by Cæsarean section. Accordingly the following facts were laid before the woman and her husband: "That the patient could be delivered in no other way than by abdominal section; that most probably the child was dead (as no foetal heart could be heard), and that in case she should survive the operation, the chances of which were explained to her as being very slight, she must necessarily soon succumb to the disease." After brief

deliberation, both husband and wife urgently desired that the operation should be performed.

Operation, May 6th, 1 P.M.—Mr. Maynard having placed the patient under the influence of chloroform, an incision was made from a point about two inches above and to the right of umbilicus downwards to within about two inches of the pubes. Only one small artery required a ligature. The peritoneum was then divided on a director, and the uterus exposed. The incision into the uterus showed at once that the placental attachment had been hit upon; the wound was therefore rapidly enlarged downwards, and the placenta detached and extracted by Dr. Lowe, together with the foetus, which, as we supposed, was dead. Only about four ounces of blood were lost during the operation. As the uterus showed little tendency to contract (the left half contracted fairly, but the right was so infiltrated with cancerous deposit as to be unable to contract) two sutures were inserted to draw the gaping edges of the wound together. Some difficulty was now experienced in keeping back the bowels, which were violently forced forwards by the efforts at vomiting. As soon as these had subsided the external wound was closed by silver sutures and broad strips of plaster, over which was placed a pad of lint dipped in carbollated oil, and the whole enveloped by a flannel bandage. The patient had a violent attack of vomiting after the operation. Pulse 130, weak. Very little discharge per vaginam. Ordered ice to suck, and iced brandy-and-water.—11 P.M.: Pulse 130, somewhat improved in strength. Has vomited once; complains of the brandy making her feel sick, so iced champagne was substituted, which had the same effect. Soda-water and milk were then ordered, and a large quantity retained. Slept tranquilly at intervals. Further treatment consisted of beef-tea and milk enemata, and half-grain doses of opium every three hours.

May 7th.—Very little pain; pulse 120, stronger; temperature 102°; vaginal discharge nil. Passed a comfortable day, but towards evening, after movement, violent pain in the abdomen came on, and incessant vomiting, which nothing would check. The pulse rose to 160, and she gradually sank, and died at 6 A.M. on May 8th.

Post-mortem examination.—Abdominal wound healed almost by the first intention. Intestines very slightly congested; no trace of peritonitis anywhere, nor any appearance of hæmorrhage. Uterus relaxed, and the wound in it gaping. On continuing the incision already made in it down to the site of the tumour, the latter was found to be attached to the anterior lip of the os and the anterior and lateral walls of the vagina; no bony attachments. A section of the tumour under the microscope revealed large irregularly shaped cells containing nuclei and nucleoli.

Wisbeach.

ON THE TREATMENT OF GLEET BY INSUFFLATION OF ASTRINGENT REMEDIES.

By JOHN ST. S. WILDERS,

SURGEON TO THE QUEEN'S HOSPITAL, AND TO THE INFIRMARY FOR DISEASES OF THE EAR AND THROAT.

FOR some years I have been endeavouring to obtain an instrument which would enable me to apply astringents in the form of very fine powder to the urethra in cases of gleet, in place of the injections in general use. I tried various kinds of fine tubes and quills fitted into india-rubber balls, but I found them invariably inefficient from becoming plugged up by the mucus in the passage. For this purpose Messrs. Salt and Son, surgical instrument makers of Birmingham, have devised the very ingenious instrument figured below, which I have found to be a perfect mechanical success. It is made after the model of the insufflator for uterine diseases made by them for my friend and colleague, Mr. John Clay, and described in THE LANCET of Nov. 30th, 1872, and Feb. 1st, 1873. I use various powders, such as alum, tannin, sulphate of zinc, iodine, mixed with sugar of milk, charcoal, or powdered lycopodium, in various proportions. In cases where the gleet is very chronic I prefer to employ the powder only slightly diluted; but where the disease is of more recent origin I have recourse