turally as he lay in bed. On the 17th, I temporarily reintroduced the catheter with ease, and again on the 19th.

During this period, from about January 2nd, the patient had refused to take any medicine, and, during certain parts of the period, was so profoundly prostrate, that his friends thought it quite useless to attempt to do anything more for him. At times, we found the irregularity and intermission in the action of the heart so great, that there could not be counted at the wrist twenty distinct beats in the minute; and, of course, there were corresponding symptoms of hypostatic congestion of the lungs and congestion from blood-poisoning. On finding him able to be sufficiently raised in bed, on January 19th, we ascertained that the affection of the lower and middle lobes of the right lung had passed through the stage of congestion, or congestive pneumonia, into the state of complete infiltration, or asthenic hepatisation, of the parts. We then ordered the inunction of an ointment composed of compound mercurial ointment, iodide of potassium, and croton oil; and the administration of a mixture of infusion of senega, iodide of potassium, bicarbonate of potash, carbonate of ammonia, tincture of squill, and compound tincture of camphor. But he did not take the whole of one bottle. From this time, he never required any operative proceedings, and did not take any more medicine, except a little castor oil when needed; he slowly improved, gradually increasing in appetite and strength. He could, on February 27th, come downstairs during the greater part of the day, and was about to resume his outdoor duties; he could urinate quite as well as he could before Michaelmas, and merely required to pass urine once or twice in a night: and the blocking up of the lung had also been removed by absorption in a marvellous degree.

Without the aspirator, the poor man whose case is above related must have perished miserably, as, from the size and the projection backwards of the prostate, it would have been impossible to tap *per rectum*, and it is not likely that an ordinary trocar and cannula could have been passed into the bladder, above the pubes, daily and twice a day, during twelve consecutive days, with safety, to say nothing of the pain and shock of so considerable an operation in a patient so profoundly prostrate, with low congestive inflammations and low febrile symptoms, that on many occasions he appeared to be within a few hours only of death; and to have attempted to have kept an ordinary cannula tied in above the pubes during that period would probably have terminated in a fatal result.

CASE OF DROPSY: TREATMENT BY ACUPUNCTURE.

By W. MUNRO, M.D., C.M., Cupar Fife, N.B.

THE following short *résumé* of the treatment, or rather the important part of the treatment, of a severe case of renal and cardiac dropsy, may be of interest. In such a case, of course, life could only be prolonged; but in those, rarely seen in this country, but not uncommon in hot climates in which there is no organic disease, it may be saved.

On May 14th, 1873, I was called to see A. B., and found him propped up in bed, suffering from dyspnoea. Both legs were much swollen. His heart was enlarged. There was albumen in the urine. I tried various diuretics, but he continued to grow worse, the legs swelling more and more until the skin was tense and glistening, and white in colour. There was also oedema of the back.

On May 21st, he was fast suffocating, and could not have lived another day. I began puncturing, first making twenty or thirty holes in each leg with small sewing needles. As the water escaped, he began perceptibly to improve. I now punctured three times a day for some days, watching for any signs of inflammation, and dropping to once or twice a day when it did appear. Whenever I did not puncture often enough, however, A. B. became worse, and care was required in keeping between the two extremes of doing it so often as to produce local mischief, or not often enough to give relief. I found very soon, however, that I could use larger needles, and ultimately preferred a short thick darning needle, which I held between the middle and third fingers and pressed in with the thumb-nail. I found that the thick needles, making larger holes, obviated the necessity of puncturing so often, such holes not closing up soon as smaller ones. I gradually lengthened the period between puncturing to every second day and every fourth day, but three times over was compelled to shorten the time, the water having collected so fast. On these occasions, and on one of them in particular, A. B., who was gasping for breath when I began, to my surprise was much easier before I had finished puncturing, and in two hours was relieved entirely of the dyspnoea. I found that the addition of five or six punctures with a lancet-point assisted me in lengthening the intervals, the holes remaining longer open than those from the needles. The patient's health improved so that he was able to get up and walk about, and in September he was able to leave home for a short time. At that time, I was only puncturing the legs once in ten days or so. He became worse again, however, in October, when he had to be much confined to the house. In November, he caught a cold, resulting in pneumonia. At this time, I was forced to puncture about every third or fourth day. He passed through the pneumonia; but it had been too much for his strength, and he died on December 17th from exhaustion, having thus lived seven months, as I firmly believe, by the assistance of acupuncture.

I have avoided giving details; but I may say that I tried all kinds of diuretics, with only temporary increase of the quantity of urine passed, and ultimately gave up the use of any medicines except such as were required to palliate troublesome symptoms.

From all that I saw of the case, I was quite hopeful of getting him over the winter, and consider that in one sense he was prematurely cut off by the exhaustion caused by the pneumonia. Otherwise there seemed to be no limit to the length of time his life might have been prolonged.

I may say that at first there was absolutely no pain caused by the treatment. Afterwards, as the size of the legs fell and the skin became more natural and sensitive, there was soreness, but, in spite of this, the patient insisted on the puncture being done, looking on it as his sheet-anchor.

Five years ago, I treated a negro girl in St. Kitts, suffering from anæmic anasarca (caused by poor living), there being in her case no organic disease, by puncturing the legs with a needle. She was completely swollen all over the body, and had continued so for some time in spite of treatment; but the relief afforded by the punctures, which I only used twice, seemed to assist nature so much that in a week or two the anasarca quite disappeared, and she recovered.

I have omitted to mention that I found bathing the feet in hot water assist the flow of water from the punctures, which was sometimes so great that cloths wrapped round the leg had to be changed every half-hour, being thoroughly soaked.

I have thought it right to publish this case, so that others having such to treat may not give them up whenever they find diuretics and other medicines of no avail, and also to point out how much more irritation the skin can stand than might be expected. When I first began, fears of sloughing of the skin and such like evils used to stand like phantoms before my mental vision, making me, as I now know, more timid than I otherwise might have been in using large needles. But no more mischief was ever done than a slight erythema being brought on, which possibly at the same time might have been caused by the state of the patient, and which was easily got rid of by lead lotion.

THE RELATION BETWEEN ARTERIAL TENSION AND ALBUMINURIA.

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IN the number of the BRITISH MEDICAL JOURNAL published on May 9th, Dr. George Johnson does me the honour of criticising my paper recently read before the Royal Medical and Chirurgical Society. Assuming that "the increased arterial tension is the result of contraction of the terminal muscular arterioles", Dr. Johnson doubts the possibility of this increased tension being a cause of albuminuria; for he believes that, the tension in the arteries being increased by the contraction of the arterioles, the tension in the capillaries is actually diminished, I cannot, however, admit Dr. Johnson's assumption. On the contrary, I believe that the increased pressure commences in the capillaries themselves, and that it is brought about in the following manner. All physiologists admit an attraction existing between the blood and the tissues when in a normal condition, which varies with altered conditions of nutrition and secretion. This "chemico-vital" attraction for the blood, possessed by the tissues, has been termed "capillary power". It is undoubtedly an important element in the circulation, and its existence has been abundantly demonstrated by experiment (*Principles of Human Physiology*, by Dr. Carpenter, 7th edit., p. 300). Destroy this attraction by a blood-poison of any description, and the difficulty of capillary circulation will be increased; a condition of partial capillary stasis will be produced. The "capillary power" being diminished, the *vis a tergo* must be increased; hence arises high tension in the capillaries and

arterial system. If now the action of one of the excretory organs be arrested, as by a chill or constipation, extra work will devolve upon the kidneys, producing congestion; while the condition of blood-poisoning being intensified by diminished elimination, a further increase of arterial tension occurs, and, if sufficiently severe, an albuminuria. Some proof of the truth of this theory will be found in the following facts.

1. In all cases of blood-poisoning, either from scarlatina, erysipelas, or other exanthem, lead, gout, alcohol, or in pregnancy, I have found this condition of high tension to exist.

2. In cases of acute blood-poisoning, such as scarlatina, occurring in persons whose arteries have not been degenerated or thickened by prolonged high pressure, I have found this condition of high arterial tension (produced generally by constipation, sometimes by a chill), accompanied by exudation of hæmoglobine through the capillary walls. This has been discovered by the guaiacum-test, applied to the urine as directed in the paper. In these cases, no albumen can be detected in the urine by the most delicate testing; nor can any trace of blood be found by either the microscope or spectroscope.

3. If the tension be increased still more (as by continued constipation), albumen appears in the urine, in quantities bearing a direct proportion to the amount of high tension existing. If this be still further increased, rupture of the capillary walls ensues, and blood is poured out into the kidney-tubules. Thus, assuming Dr. Johnson's theory to be correct, we should have the lowest possible tension in the capillaries producing rupture of their walls.

4. A condition of contraction of the terminal arterioles, as described by Dr. Johnson, can be produced by the administration of digitalis, and its effects seen clinically in the pulse. It is, however, very different from the effect of arterial tension originating in the capillaries, such as occurs in Bright's disease. In this condition, however, though the arterial tension is somewhat increased, the capillary tension, as argued by Dr. Johnson, is decreased, and the tendency to albuminuria less.

5. If, as Dr. Johnson remarks, venous congestion produce albuminuria by transudation through the walls of the venous capillaries, surely congestion of the arterial capillaries may produce the same effect. In the paper referred to, I have especially endeavoured to distinguish between the two. What I have called *arterial albuminuria* I demonstrated to accompany blood-poisoning, to be accompanied by high arterial tension, and preceded by exudation of hæmoglobine; while *venous albuminuria*, as produced by intense fever, pneumonia, heart-disease, etc., is distinguished from the former by low arterial tension, and the absence of hæmoglobine from the urine, except when it occurs coincidentally with blood-cells and colouring matter from rupture of a venous capillary and effusion of blood.

6. A most convincing proof of this theory has lately been afforded by an experiment performed by Dr. Lauder Brunton, in which I had the pleasure of assisting. Transudation of hæmoglobine and albuminuria was produced in a strong healthy dog by ligation of its abdominal aorta below the renal vessels. This experiment requires repetition before the result can be accepted; for in the urine of another dog, on which the same operation was performed, though under extremely unfavourable circumstances, no reaction was obtained with the guaiacum-test.

Again, Dr. Johnson questions the possibility of accounting for the pathological changes in acute Bright's disease by the condition of "congestion under high pressure". But if, as I suppose, high tension exist and commence in the capillaries, and congestion of the kidney be added to it, owing to arrested action of either of the other excretory organs, we not only have good reason for the albuminuria, but, from the fact of increased blood-supply to the kidney, increased cell-production in that part may be expected. This cell-production, moreover, is not that characteristic of an ordinary acute inflammation; for the cells, though produced in increased numbers, not only attain maturity, but exceed it, and pass on to hypertrophy, owing to the rapid proliferation of new cells. These are cast off in great numbers, and, blocking the tubules, form the large white kidney; here they undergo the change common to all cells after their death—namely, molecular disintegration and fatty change—previous to their absorption during the third or contracting stage. Thus, in no stage can I recognise a condition that may truly be called "inflammatory", or that cannot be accounted for by "congestion under high pressure".

Finally, while fully admitting the truth of Dr. Johnson's observations on the muscular hypertrophy of the arterioles, I submit that the effort required to prevent their over-distension by the high pressure within is quite sufficient to account for that hypertrophy, without the introduction of a theory which at least implies a want of unity of action in the muscular portion of the circulatory system that is rarely seen in nature.

OBSTETRIC MEMORANDA.

REMARKABLE TWIN DELIVERY.

E. S. was attended by me on October 12th, 1873, in her second labour. She was delivered about 1.30 A.M. of a small male child, apparently of the eighth month. On examining the abdomen, the uterus was found well contracted, of the usual size after delivery. Towards the left side, but on the right side from the ribs to the ilium, was a large tumour, indicating a second child. Some hæmorrhage occurring, the uterus was found by vaginal examination to contain only placenta and coagula. A dose of ergot was given. The hæmorrhage ceased, but no pains occurred for six hours. Then the patient felt the tumour pass downward and to the centre, when no doubt the second fœtus entered the uterus; and, on examination, I found a second head presenting. Pains shortly recommenced; in half an hour the second membranes were ruptured; and by 9 o'clock a male child, much larger than the first, was born. The double placenta was shortly afterwards expelled, when the uterus was again found well contracted, and no second tumour could be distinguished. The patient, being a tall slender figure, with thin abdominal walls, was most favourable for such to have been detected if it had existed. The second child was still-born. The first and its mother progressed without a bad symptom. H. UMPLEBY, M.D.

UNUSUAL CASE OF PROLONGED LABOUR.

On Thursday, November 27th, I was sent for to W. S., aged 40, about to be confined with her tenth child. The patient stated that early that morning she had seen the "shows". On vaginal examination, the os uteri was found dilated to the size of a shilling, the lips not rigid, and the membranes protruding. She passed over Thursday, Friday, and the greater part of Saturday, without any unusual symptoms. On Saturday night late, I was sent for, and, on my arrival, found her in great pain. The pains, however, were not confined to the fundus uteri or sacrum, but distributed throughout the abdomen. The pulse was normal; there was no fever; the tongue was clean and moist. On examination, the os was found *in statu quo*, dilatation not having made any progress since the last examination. The posterior wall of the vagina was more resistant than natural. On inquiry, the patient now stated that her bowels had not acted thoroughly for ten days. I ordered twenty grains of compound jalap powder, to be followed in two hours by a full dose of saline aperient; the latter to be repeated every two hours until the bowels acted. On my next visit, a few hours afterwards, the patient informed me that she had vomited everything taken. Under these circumstances, a pint of warm soap and water was injected into the rectum. After this, she passed a quantity of dark green scybala, which greatly relieved her. On visiting her again a few hours afterwards, she was comparatively free from abdominal pain, but still complained of some uneasiness in the hypogastric region. I therefore repeated the injection, this time passing the enema-tube into the sigmoid flexure. In this way, over a pint of warm water was sent up, and in a very short time the patient evacuated a large quantity of dark green semifluid feculent matter. The patient was now quite free from pain, and continued so up to the time of her delivery, which took place the Friday following (December 5th)—*i. e.*, eight days after the commencement of dilatation of the os uteri. The second stage occupied eight hours. The uterine pains were feeble, the forceps being required to complete delivery. It is probable that in this case the unusual prolongation of the first stage of labour was attributable partly to feeble uterine action, but mostly, I think, to the distended condition (from accumulated feces) of the upper part of the rectum and of the sigmoid flexure; and the fact that, at the first vaginal examination, the os uteri was found to be further forwards than normal, seems to strengthen this supposition.

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ACUTE ALBUMINURIA WITH CONVULSIONS DURING PREGNANCY: RECOVERY.

MRS. B., aged 24, pale and small, but moderately plump, seemed to have a tendency to convulsion, for three years ago she had a fit from some unknown cause. On April 22nd, 1873, she complained of pain in the left hip, and of left facial neuralgia. She was in the seventh or eighth month of her first pregnancy. The bowels were somewhat relaxed, and she was listless. Ten minims of the tincture of nuxvomica thrice daily in water, with a teaspoonful of pale brandy, having been ordered, she took (by mistake, only half) the first dose at 10 P.M., after a supper of bread, butter, and coffee. At midnight, she awoke