

with frequent sickness. This story suggested that there might be a hernia. I asked if she had a swelling in either groin; to which she replied she had not. I, however, placed my hand on the usual situations of rupture, and found a swelling of about the size of a large hen's egg in the left groin, which I assumed to be an oblique inguinal hernia. I told her she was ruptured; and that this, no doubt, was the cause of her suffering.

I proceeded to reduce the hernia by the hand. After about twenty minutes manipulation the swelling disappeared, having given clear and unmistakable evidence, as I thought, of the return of a protruded bowel into the cavity of the abdomen. The bowels had not been relieved for two days. I gave a black dose, which acted freely during the night and next day. I then advised that a truss should be worn. Being an exceedingly modest person, she would not trouble me to adjust a truss; she said she could do that herself, with the assistance of a neighbour who had some experience in trusses in her own person. I sent three or four sizes for her to choose from, called in two days, and found her very comfortable with her truss.

My visits now ceased, but in a week (June 7th) she again sent for me. The truss hurt her, and she asked whether I would exchange it for another. She was now suffering from an acute attack of diarrhœa. I removed the truss, and found a hard swelling, considerably larger than the former, and, it appeared, higher up. Having carefully examined this, I pronounced it an acute abscess, and treated it with leeches, evaporating lotions, and subsequently with poultices.

On June 12th, the diarrhœa was less severe. On June 15th, the eighth day from the leeching, fluctuation was distinct; but, as the abscess pointed, I did not open it. On June 17th (the tenth day), on placing my finger on the apex of the tumour, I discovered a rough pointed substance, which I extracted with a forceps, and found it to be a triangular piece of bone, about half an inch long. This was followed by about half a pint of fetid purulent fluid, mixed with blood and flakes of curdy matter. I filled the cavity with lint.

On June 20th, the diarrhœa ceased: the bowels soon becoming constipated, and requiring the occasional use of aperients. The strength also began to falter. I ordered bark and acids, port wine, and beef-tea.

On June 23rd, air escaped from the cavity in considerable quantity. On the 24th, fœces were mixed with the secretions.

Sloughing now commenced, and extended in every direction, demolishing in five or six days the whole of the soft parts in a line leading from the anterior superior spine of the ilium inwards to the linea alba, downwards to Poupart's ligament, and backwards to the bowels, a considerable track of which became exposed. The external iliac artery was denuded, and the common iliac was reached with the finger. An opening into the cavity of the abdomen was formed, large enough to receive a pint slop-basin. Large quantities of fœces now passed through this opening, and very little *per anum*. Having a suspicion that an accumulation might have taken place in the lower colon or rectum, I injected some tepid water, with a view of clearing the bowel. With the first stroke of the piston, the stream passed out through the artificial opening; it was, therefore, probable that the sigmoid flexure was the part of the bowel involved in the new anus.

The treatment consisted in filling the cavity daily with lint dipped in oil, placing over it a stiff linseed poultice, crossed in two or three places with adhesive plaster, and secured with a light flannel roller. About a pint of tepid water was injected into the bowel *per anum* twice a week. The medical part of the treatment consisted of opiates at night to procure sleep, of which she had a scanty measure; bark, quinine, acids, and wine, in large quantity.

On July 10th, the artificial anus had its sphincter fully developed. The circular fibres of this muscle mimicked very prettily those of the sentinel of the natural outlet. On July 16th, very little fœces passed through the artificial opening. The lint was no longer placed in the cavity; simple ointment on lint was placed over the opening, and a compress of sheet-lead secured over it. On August 4th, no fœces had passed through the opening for five days.

This case passed from my care at this date; the person being a pauper residing in a Poor-law district of which I had charge for a short time, but which I resigned at this period. I, however, did not lose sight of her. The parts are now, and have been for some time, quite healed. The new anus is obliterated; and the poor woman informs me that she enjoys as good health as at any time during the last twenty years.

Now comes the interesting question, What was the first swelling, which I assumed to be a hernia? We shall probably be directed to the answer by the bone which escaped from the second swelling, or that which I describe as an acute abscess. Did she swallow the bone with the broth which she used as her daily food? She informed me she converted whatever meat she could get into broth, as the most economical form of cooking it. She had no recollection of having swallowed a bone; but the poor woman's habits were intemperate; and this frailty of hers, coupled with the appearance of the bone, and the absence of all evidence of caries of the spine, sacrum, or pelvic bones, strengthens the assumption that she swallowed the bone; that it became entangled in some part of the bowel; and that, from what I have already stated, that part was probably the sigmoid flexure of the colon; that, obedient to the law observed by foreign substances entangled in living tissues—namely, of directing their course, by intestinal absorption, to the surface in the direction where there is least resistance—it pinned the bowel, or one surface of the bowel, to the soft wall of the abdomen, leaving the channel of the bowel free and open, until its progressive and silent course was disturbed and its relation with the surrounding parts altered by the fall down stairs. An aperture was, perhaps, then formed, through which air from the bowel, and perhaps a jet of fluid fœces, were forced into the cellular tissue constituting the first swelling. If this were the course of events, the air was forced back, by my manipulation, into the bowel through the same opening by which it came out; and so kept up the delusion of the presence of a hernia. The truss subsequently applied made matters far worse; for by its pressure and friction it continued to disturb the bone with every movement of the body, and so had some share in producing the second swelling or abscess. The woman informed me she had no swelling in the groin before this time; consequently, there was no pre-existing hernia.

STRANGULATED FEMORAL HERNIA: REDUCTION BY INVERSION.

By THOMAS T. GRIFFITH, Esq., Wrexham.

Mrs. JONES, aged 72, a farmer's wife, of spare habits and short stature, had long enjoyed good health, but was the subject of crural hernia on the right side. She had never worn a truss; and the tumour was usually in an unreduced state. On Monday, June 1st, strangulation appears to have taken place, followed by vomiting and constipation. On the following day (Tuesday), she was seen by Dr. Dixon, who, having detected the hernia, attempted its reduction by the taxis without success. He prescribed means for allaying the irritable state of the stomach, and enemata to solicit the action of the bowels.

The next day (Wednesday), in the evening, I was asked to see the patient with Dr. Dixon. We found her depressed, with frequent vomitings, no action of the bowels, and thirst, with a dry tongue; pulse small, wiry, 90. The hernial tumour was hard, hot, incompressible, tender, and not distended by coughing. The right iliac region was sore on pressure, and tympanitic. Under these circumstances, I made a very cautious but ineffectual trial of the taxis; and we then decided that an operation offered the only means of safety to the patient. Previously, however, I was anxious to try the effect of inversion of the body. The patient was placed in the vertical position, with her head on the floor. A careful employment of the taxis produced no sensible effect. She readily consented to the operation; and when, after a short interval, I was about to perform it, she said that the swelling was softer. On examination, this appeared to be the case, and we decided upon another trial of inversion. In this posture, with flexion of the thigh, the taxis produced a partial return of the hernia; and in a short time the whole passed into the abdomen. Comparative ease and relief from vomiting soon followed. Calomel and opium were given; and subsequently one grain of calomel effected the free action of the bowels. The pulse sank to 72, and she had good sleep.

I did not again see the patient; but Dr. Dixon kindly furnished me with details of progress and treatment. She had a narrow escape from alarming prostration, and it was only through the instrumentality of unremitting care and judicious treatment that she gradually recovered. Some difficulty still attends her wearing a truss.

As a means of reducing hernia, the inverted position with the taxis has long been known, and is especially adverted to in Mr. Hey's valuable work *On Surgery* (pp. 123-131); but he does not speak encouragingly of it. Recently cases of it, with a successful result, have been reported by Messrs. Jessop, Power, and Bowman; and it will probably be now admitted as one of the remedial measures to be employed before resorting to an operation. It must in a degree act by gentle traction on the contents of the sac, and probably still more by opposing the influx and facilitating the efflux of blood—an observation made by Mr. Bowman in speaking of the case under his care. This would best explain the fact in the above case of softening of the swelling after the first inversion, and would suggest the repetition of the procedure, should a first or second trial of it fail.

M. PASTEUR ON PUTREFACTION. As a natural sequence to his investigations on fermentation, M. Pasteur is now engaged upon *Researches on Putrefaction*. His present paper relates exclusively to the cause of putrefaction, which he says is determined by organised ferments of the genus *Vibrio*. The author has investigated the nature of the putrefactive changes which take place in matters exposed to, and protected from, air. These it appears are effected by two classes of infusorial ferments, one of which cannot exist without oxygen (*e.g.*, *bacteria*) and the other cannot exist without—*vibrios*. In some cases, when the action of the former causes a pellicle to form on the surface of a liquid, and so prevents the absorption of oxygen, two distinct chemical processes go on simultaneously. In the interior of the liquid *vibrios* transformed nitrogenised matter into more simple but still complex bodies, while on the exterior the *bacteria* burn these matters up, and reduce them to simple binary forms, as water, ammonia, and carbonic acid. Gangrene, M. Pasteur says, is not putrefaction properly so called, but a condition of a part in which the liquids and solids react chemically and physically on each other without the normal acts of nutrition. Death, he adds, does not put an end to the reaction of liquids and solids in the body,—a sort of chemical and physical life continues to act.

Transactions of Branches.

LANCASHIRE AND CHESHIRE BRANCH.

ON THE TREATMENT OF RHEUMATIC FEVER.

By J. BIRKBECK NEVINS, M.D. Lond.; Lecturer on Materia Medica, Royal Infirmary School of Medicine, Liverpool.

[Read June 24, 1863.]

THE plan of treatment about to be laid before you is one for which I am not able to claim the credit of originality, but it is a method which I have adopted for above fifteen years both in private practice and in an union hospital containing above one hundred and fifty beds; and I think that, if its advantages were more generally known, it would be more frequently practised. During this period I have made trial also of the various modes of treatment which have prominently occupied the attention of the profession; viz., the opiate, the alkaline, the lemon-juice, and the do-nothing treatment; but I always return to my accustomed plan, with confidence rather increased than diminished by the comparison with others. At the same time, I am bound to confess that this treatment will come before you with one very serious defect, which it is vain now to attempt supplying—viz., the absence of detailed clinical reports of the cases treated; and I am unable, therefore, to say how many have been cured, or how many days have been required before the patients could walk about, how many before they could leave the hospital, or how many before they could go about their work as usual. Such phrases as "I feel very confident", "I am thoroughly convinced", and the like, are the nearest approach to accuracy now attainable; and I am well aware how much this absence of exactness lessens the value of any conclusions respecting the result of treatment in such a disease as rheumatic fever. With these preliminary remarks, I will now proceed to the details of the method.

It is impossible to observe many cases of rheumatic fever without being struck by the periodicity of the disease, as shown by the general aggravation of the pain and other symptoms as night comes on, and also by the copious sweating, which enfeebles the patient, rather than relieves him. The long continuance of the illness, and its liability to return after apparent recovery, and the length of time requisite for regaining strength, are also well known features. In some of these particulars, but especially in its periodical exacerbations and in its sweatings, Heberden and others, and Dr. Davis of University College, in a very able paper on the subject, have at different times noted its similarity to ague, and advocated the employment of cinchona or quinine for its cure; and it is this drug upon which I look as the basis of the treatment to be proposed to you. At the same time, the experience of the profession generally has shown the great value of iodide of potassium in chronic rheumatism; and, remembering the tendency of this disease to become chronic, I always combine this medicine with the quinine, and commence their administration from the earliest date at which the patient comes under my care. The presence of acute pain and high febrile excitement does not, in my experience, form any objection to their employment; and the thick creamy fur upon the tongue disappears more rapidly under their use than under the different methods which I have compared with it, either in my own practice, or when noticing that of my brethren in the profession. The dose never exceeds two grains of quinine four times a day, with five grains of iodide of potassium added to each dose.