1878, p. 122), and by myself in the paper to which I have alluded, it is much safer to open the ascending colon in the right loin, although, in this case, the bowel might have been got at in the left loin above the stricture.

DUCHENNE'S PALSY AND THE PATELLAR TENDON-REFLEX.

By H. DONKIN, M.B.,

Senior Assistant-Physician to the Westminster Hospital, etc.

THE interest felt of late by neurologists in the import of modifications of the so-called patellar tendon-reflex is my excuse for these few remarks.

The increase of this phenomenon in affections where we have reason to believe there is some release of the spinal system from the normal brain-control, or in other words, where the inhibition of reflex action is in abeyance, does not present any special difficulty. We have an example of this furnished us by the *spastic* or *spasmodic* paralysis, which has been attributed to sclerotic change in the lateral columns of the spinal cord. It might be of interest to inquire whether hysterical disease is illustrated by the same phenomenon.

But when we consider the diagnostic and etiological value of the abolition of the tendon-reflex, we are met with a somewhat more complex question. The stoppage of the impulse which leads to the reflex action of the quadriceps extensor cruris may take place in the centre, or in the afferent or efferent nervous apparatus. From what we know of the absence of this phenomenon in locomotor ataxy, where it has been hitherto chiefly observed, we appear to have good reason in considering central change to be the obstacle. The reflex disappears before there is any marked sensory or motor paralysis, and morbid anatomy connects with this disease a definite lesion of the cord. It would seem that the abolition of this tendon-reflex probably points to some spinal lesion, in cases where sensation and voluntary power over the muscles still exist in the limb in question. Now, among the affections in which this phenomenon has been studied, Duchenne's palsy, or pseudo-hyper-trophic paralysis, is somewhat prominent. I have noted it in two well marked cases (one of which is still in the ward) that I have lately had under my care at the East London Hospital for Children; and I find four cases with this symptom mentioned in Dr. Gowers's very valuable lecture recently published. Considering how very lately it is that attention has been directed to the knee-phenomenon, hitherto known chiefly to schoolboys, these four observed cases probably bear a larger proportion to the whole list than appears at first sight. Dr. Gowers certainly states that, early in the disease, the reflex is present; but, in support of this, he quotes no individual case. It is desirable that further observations be made on this perhaps important point; though it is but rarely that early cases of Duchenne's disease come under the notice of physicians. At first sight, however, the loss of tendon-reflex appears to have some bearing on the hitherto unwritten pathology of this malady. Although there is no positive anatomical evidence in favour of the theory of its central origin, there is not much to be said as yet for the German explanation, quoted and espoused by Dr. Gowers, that the disease is a congenital nutritive and formative weakness of the striated muscle-substance. There are many and important clinical points of analogy between Duchenne's disease and progressive muscular atrophy, which we are now tending to class among spinal diseases; and it can hardly be denied that, should further observation confirm the frequent occurrence of the absent knee-phenomenon in Duchenne's palsy, we should take this fact into account when discussing its probable origin, remembering the analogy of locomotor ataxy.

It may be urged by some that the absence of tendon-reflex is connected in the disease we are considering with the very muscles which are notably weakened, namely, the quadriceps extensor cruris; and that the stoppage of the reflex stimulus may take place in the motor nerve to this muscle, or in the muscle itself. But we must remember that, although these muscles are shown to have lost working strength, especially in the action of rising from the ground, yet a very fair voluntary power remains for some time of extending the leg on the thigh when the patient is lying on his back. It might be interesting, however, in this context to inquire, more accurately than has hitherto been done, into the degree of power of these extensor muscles in the stages of locomotor ataxy previous to the setting in of the general parietic condition.

Further observations may settle the question as to whether the diagnosis and pathology of Duchenne's disease may gain any such light from the absent tendon-reflex, as we think we have derived therefrom in our study of locomotor ataxy.

HYDATID DISEASE OF SPLEEN AND LEFT LUNG: NECROPSY.

By WM. S. PAGET, M.D.Lond., Great Crosby.

THE perusal of Dr. Wilson's case of hydatids in the Cheltenham General Hospital, reported in the JOURNAL of April 3rd, calls to mind an interesting case, perhaps almost unique, which I had about three years ago, and of which I preserved full notes, but never published them.

Mrs. L., aged 39, married at the age of 28, with a family of four children, had enjoyed fairly good health all her life up to four years ago, when she first complained of pain in the left side under the false ribs; she noticed, also, slight swelling in this locality, at the same time commenced attacks of hæmoptysis, large quantities of florid blood being expectorated at intervals of three or four weeks, usually at a menstrual period, which latter, however, was as a rule profuse. Along with the expectoration of blood, or sometimes alternating with it, large shreds of parchment-like membrane were expelled; they were only got rid of after a severe attack of coughing. Over the region of the swelling, the patient complained of a tickling sensation, as though something were moving inside.

Mrs. L. had been under medical advice four years previously to my seeing her, and two of the gentlemen whom she consulted had informed her that she was expectorating "live things" (as she expressed it). Her condition, when first seen by me, was as follows; face worn and anxious, slightly icteric; considerable emaciation; pulse 120; temperature 100°; respiration laboured; cough paroxysmal, attended by profuse expectoration of thick muco-pus, sometimes half a pint in twenty-four hours; occasionally large parchment-like pieces of membrane in the expectoration, of laminated structure, but no echinococci on microscopic examination. She complained of considerable pain in the left subclavicular region. The digestive system was much impaired, most articles of food being rejected sooner or later.

The physical signs in the chest were deficient expansion on the left side, and at the apex indications of breaking-up of lung-tissue; respiration feeble at the left base; condition on the right side normal. Over the splenic region was a swelling bulging to the extent of six inches below the false ribs, tolerably firm, but with an indistinct fluctuation. When examined in this region, the patient expressed herself as confident that it was from this quarter the shreds of membrane came in the paroxysm of coughing; but, on applying the stethoscope and desiring her to cough, no evidence could be obtained of any communication between the tumour and the left lung, though the amount of muco-pus expectorated seemed more than could be accounted for by the physical condition of the left apex. The urine was scanty, depositing lithates; no albumen. The subsequent progress of the case was downwards; signs of large cavity at the left apex; frequent vomiting; dyspnoea urgent. Death took place suddenly one day in attempting to clear the throat of some membranous shreds.

My diagnosis was that the tumour was splenic, probably hydatid; that it had suppurated, become adherent to the left lung, and was discharging itself by this means; that there was co-existing phthisical disease of the left apex, or else an old suppurating hydatid cyst in that locality.

NECROPSY.—I had considerable difficulty in obtaining an examination; but, after great persuasion, succeeded in obtaining permission to examine the chest and abdomen. The lower lobe of the left lung was comparatively healthy, but at the apex was a large cavity, in which three fingers could be placed, full of muco-pus and large detached shreds of membrane; others of similar character hanging from the walls; these were of precisely the same nature as those expectorated. The right lung and the heart was healthy. The tumour projecting from beneath the left false ribs proved to be the spleen; it was nine inches long, six inches broad, four inches thick, and weighed two pounds and three-quarters. On making an incision into it, acephalocysts in all stages flowed out, varying in size from a pin's head to a walnut; in the centre was a quantity of saponaceous material, consisting of shrivelled cysts and fatty matter. The cysts and fluid together measured over a pint. The liver, though carefully examined, showed no signs of either recent or old-standing hydatid disease in the shape of cicatrices. The other abdominal organs appeared healthy.

REMARKS.—The point of chief interest seems to me to be the relation between the affection of the spleen and that of the lung, for that the latter was hydatid, I think, admits of no doubt; as far as could be gathered, they seem to have originated about the same time. It is a matter of regret that I could not glean any particulars from her previous medical attendants; one, to whom I wrote, remembered the case, but could not find any notes of it. A curious feature is the non-affec-

the liver; for I believe it is almost an invariable rule that, when the spleen is affected, there are found traces of previous liver-affection. If it be suggested that the secondary growths are started by conveyance of the parasite in the portal blood-stream, the splenic ought to be the older growths, the hepatic the more recent; and, in the case just reported, one would have expected to find (if this theory were correct) a recent tumour in the liver; the opposite state of things, however, appears to be the rule: an old liver-affection, a recent splenic one, when these coexist. This case would seem to lend support to the theory that the hooked embryos, when liberated in the human alimentary canal, make their way at different periods into neighbouring organs, and thus originate hydatid growths at different stages, quite independently of the blood-stream.

THERAPEUTIC MEMORANDA.

TOLERATION OF OPIUM IN AN INFANT.

HAVING lately had under my care a case showing remarkable tolerance of opium in an infant, I subjoin the following details. On April 10th, I was called to see an infant aged four months, suffering from obstinate constipation, the bowels never being opened except by the use of purgative medicine. The child was considerably emaciated, notwithstanding that he took the breast readily, and there was a good supply of milk. The right testicle had not descended, being felt in the groin. Otherwise, there was no evidence of organic disease. At the same time, I found that, to relieve the constant abdominal pain, the mother was administering, in teaspoonfuls, from six to eight drachms of laudanum in the twenty-four hours. The mother also stated that less than fifty drops of laudanum produced no effect, and that, were the opiate withheld, the child drew his legs tightly upon his belly, and screamed so as to preclude any possibility of quiet in the household. At birth, the child was fat and healthy, nor was there any evidence of wasting for six weeks afterwards. When a few hours old, the child was fed with some biscuit-powder, and shortly afterwards began to scream and draw up his legs. Carminatives were given with but little effect; then small doses of a sedative mixture, containing morphia; and the bowels were cleared out repeatedly. Notwithstanding, the pain recurred as soon as the influence of the sedative wore off, and the dose required to be increased in order to afford the necessary relief. Since that time, the bowels have never operated without medicine, and there has been constant pain and flexion of the thighs on the abdomen, except when the child is narcotised. The mother also tells me that the last medical man called in declined to attend the case on her refusal to withdraw the opiate. I told her my belief that the child was being slowly poisoned by the laudanum, and strenuously urged her to decrease the dose gradually. At the same time, I recommended three or four teaspoonfuls of cod-liver oil to be given daily, and a mild aperient powder every second or third night should the bowels not act of themselves. Now (April 18th), the child is getting between three and four drachms of laudanum in the twenty-four hours, nor has it suffered during the withdrawal of the opiate as it did on previous occasions.

J. MACKENZIE BOOTH, M.A., M.B., Aberdeen.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

I ADMINISTERED bromide of ethyl at the Middlesex Hospital a few weeks back, with the following results.

The first patient was a corpulent man, aged 47, suffering from fistula in region of anus, who had often had anæsthetics before. He was inhaling for six minutes before he was fully under its influence, and the operation lasted nearly forty minutes. Fifteen drachms of the anæsthetic were used, and he vomited three times during the operation, the vomiting continuing more or less for two days. The pulse was not quickened. This patient has since been operated upon, when chloroform was used, after which he had no sickness.

The next patient was a boy aged 17, suffering from disease about hip. He was kept under the influence of the anæsthetic for twenty-two minutes, during which time he inhaled fourteen drachms. He vomited twice during the operation, and was very sick all through the night.

The next patient was a man aged 34, suffering from fistula *in ano*. It was seven minutes before he was insensible; he struggled a good deal, and was never completely relaxed. He retched, and then vomited, the vomiting continuing all that night. He inhaled twelve drachms. The mode of administration was on lint, with towel placed over it, except in the last case, when a leather cone was first used; but the muscles not becoming relaxed, the former mode of administering was resorted to. All the patients quickly recovered consciousness.

G. EVERITT NORTON, Chloroformist to the Middlesex Hospital.

OBSTETRIC MEMORANDA.

ERGOT SUPERSEDED.

I WISH to explain to Dr. Roden that Weiss and Son supplied me with a "vaginal plug", price four shillings. In the case to which he refers there was free hæmorrhage before labour, and during the pains; these were feeble and far between. The os uteri was not much dilated or dilatable. In such circumstances, the profession consider ergot contra-indicated, I believe. The effect of the presence of a foreign body, such as the hand (see Dr. Bernard of Londonderry, in the BRITISH MEDICAL JOURNAL, April 17th, page 585) or the elastic plug (Barnes's), is to induce contractions and expulsive efforts favourable to the cessation of hæmorrhage. I have often induced pains when the head only was born, during the prolonged period of suspense awaiting an expulsive effort, by inserting the finger and pressing backwards against the fourchette. Dr. Roden tells us how to inflate the pessary; but I cannot clearly understand how the air is to be retained within it. I found this the difficulty.

SAMUEL W. SMITH, M.D.

A CASE OF COMPLETE ABSENCE OF FEMALE GENERATIVE ORGANS.

E. G., AGED 17, an unhealthy-looking girl, was admitted into this Infirmary on February 4th, suffering from chlorosis, and complaining of great pain in her left side. She stated that she had never menstruated; and thinking this was the cause of her condition, she was treated with iron preparations, under which she certainly improved till March 25th, when she had a severe attack of epistaxis. From now, she complained more of the pain in her side; and on April 21st suddenly died. At the necropsy, I at once noticed the complete non-development of the mammae and no sign of pubic hair; and on looking for the uterus and its appendages, I found them entirely absent, the rectum and bladder lying in position similar to that of a male. The vagina consisted of a *cul-de-sac* one inch and a quarter long, with the meatus urinarius at its end. The real cause of death was found to be a large abscess at the apex of a spleen weighing seventeen ounces.

REG. MAPLES, M.R.C.S., etc., Newington Infirmary, S.E.

SURGICAL MEMORANDA.

TREATMENT OF CHRONIC CYSTITIS BY ANTISEPTIC INJECTIONS.

DURING the last few months, I have had several cases of chronic cystitis, in which there has been, from enlargement of prostate or partial paralysis of the muscular coat of the bladder, retention of urine, and consequent decomposition of that secretion.

No plan of treatment has answered so well in my hands as the daily introduction, once or twice each day, into the viscus, after the residual urine has been drawn off by a catheter, of a weak solution (1 in 100) of carbolic acid, at the temperature of 98°. The bladder appears to be singularly tolerant of the solution, and very great relief (with sometimes absolute cure) has followed on this plan. But it has seemed to me that it is of all things important that the solution find its own way, *slowly* and *steadily*, into the bladder. To ensure this, I reject absolutely any syringe, and simply attach to the end of any catheter of proper size, introduced into the bladder, a piece of India-rubber tubing, at least six inches long. To the distal end of this tube is attached a small glass funnel, into which the lotion is slowly poured. The flexible tube receives the weight from above, and, loosely held in curved form, allows the lotion to trickle slowly along the catheter. The funnel must be maintained at the height just necessary to allow this.

W. NEWMAN, M.D. Lond., F.R.C.S. Eng., Stamford.

CASE OF BULLET-WOUND.

I WAS called to T. E., who had attempted to commit suicide by firing a revolver into his mouth. On examining him, I found a very little blood in the mouth. On washing it out, I found the right side of the tongue charred, and an opening through the right tonsil about the size of a goosequill. On exploring this, my director took an upward and backward course to the transverse process of the first cervical vertebra, and then towards the left. I could detect the bullet firmly impacted in the body of that bone. The man seemed none the worse for the injury. I held a consultation, and we decided that it would be injudicious to attempt to remove the bullet. He was committed to prison, and thus I lost sight of him for ten weeks. He is now in perfect health, and in no way suffers from the bullet, which has never been removed.

WALTER BUCHANAN, M.R.C.S.E., etc., Chatham.