as to limit the amount of effusion. The head being kept high and motion strictly forbidden also contribute to the same end. Where fibrin or serum are supposed to be present, the object is to break down the solidity of the one and absorb both; hence mercury, accompanied at first with diuretics, and afterwards followed up by drastic purgatives, promises to be most efficacious. Serous apoplexy is far less likely to prove fatal than the sanguineous or fibrinous, partly because it is capable of being more easily removed, but partly, also, because it is of less sudden accession; and, therefore, as it gradually increases up to a certain point the brain becomes accommodated to the unusual pressure, so as to be able to perform its functions even under a great degree of the effusion. This was illustrated in the case of the poor woman, Whitehall, who got rid of all her dropsical effusions and got out of bed; after eating her breakfast with enjoyment she suddenly expired without a scream or struggle, and the ventricles of the brain were found so dilated with fluid as to make the brain itself appear like a mere shell.

I have also already observed that I believe many people pass nearly their whole lives with some partial deposits of this kind, leading to incipient but yet not fatal symptoms.

February 8, 1851.

CASES OF HYDATID DISEASE, WITH OBSERVATIONS.

By C. M. DURRANT, M.D.,

PHYSICIAN TO THE EAST SUFFOLK AND IPSWICH HOSPITAL.

CASE I.

HYDATID CYST IN THE RIGHT HYPOCHONDRIUM: PUNCTURE OF CYST: RECOVERY.

THOMAS SKIPPER, aged 35, a shoemaker, admitted as an out-patient of the Ipswich Hospital, July 24th, 1849, of whose previous history the following facts were elicited:—He stated that he had not been intemperate, but that he had habitually drunk a large quantity of malt liquor. He had felt pain in the right side for between four and five years, and for the last six months he had remarked that the side had become considerably larger. He was much emaciated and looked wan and care worn, but in all other respects his general health was perfectly good. On examination, a large fluctuating tumour was found occupying the right hypochondriac region, rendering prominent, and extending below, the false ribs. Its surface was smooth and even, but not in the slightest degree painful on pressure. The fluctuation was more distinct at the first examination, but it subsequently became very obscure. His lungs and heart were healthy.

The treatment consisted of the successive application of three blisters, with full doses of the iodide of potassium. These measures proving, however, ineffectual, paracentesis of the tumour was decided upon,

and performed by my colleague Mr. Bullen, August 27, 1849, when six pints of limpid colourless fluid were drawn off, its specific gravity 1012, alkaline, but not albuminous. The microscope developed merely crystals of alkaline salts. The sac having refilled, Mr. Bullen again introduced the trocar on the 10th of September, when two pints were evacuated. The fluid was now albuminous, and of an amber colour, alkaline salts appearing as before under the microscope. A flannel bandage was firmly applied to the body after each operation.

The sac partially refilled, but a third operation was unnecessary. The fluid was absorbed, the sac collapsed, and under the use of cod-liver oil, the patient became, and still continues, stout and strong.

CASE II.

HYDATID CYST IN THE RIGHT HYPOCHONDRIUM: CYST PUNCTURED: RECOVERY.

Mary Pegg, aged 43, a healthy looking woman, residing in the country, was admitted into the Ipswich Hospital, July 21st, 1849. She stated that she had had an enlargement of the right side for four years, that it had increased gradually, and without pain, her general health had been uninterruptedly good, and she had never been the subject of jaundice.

On examination, a convex prominent tumour was found occupying the right hypochondrium, the edge of which was felt well, and abruptly defined about four inches below the false ribs. Fluctuation was so indistinct that its existence was rendered almost doubtful.

Paracentesis of the tumour having been decided upon, an exploring trocar was introduced by my colleague, Mr. Bullen, and sixteen ounces of a limpid fluid of a specific gravity 1015, and not coagulable, were drawn off. The microscope indicated the presence merely of a few alkaline salts. At the expiration of seven weeks, the sac having become refilled, it was again punctured and three pints of fluid, of a similar character, were now evacuated.

After each operation the body was firmly bandaged; the patient was directed to keep perfectly quiet and to avoid speaking, and a grain of opium was administered night and morning for three days. The sac did not again refill, and the patient's recovery was complete.

CASE III.

HYDATID TUMOUR OF LIVER, SIMULATING CHRONIC PLEURITIC EFFUSION: DISCHARGE OF HYDATIDS THROUGH THE BRONCHI AND INTESTINAL CANAL: RECOVERY.

James Keeble, aged 35, an agricultural labourer, was admitted into the Ipswich Hospital, December 6th, 1849. His conformation was short and strongly built, and he stated that he had enjoyed good health up to the time of his present attack, which he refers to a cold and "inflammation of the chest," under which he laboured eighteen months previously, and since which period he had been subject to repeated attacks of cough and expectoration, disabling him more or less from work.

On admission, his countenance was sallow and muddy; expression, heavy and dull, but not anxious; tongue tolerably clean; appetite good; bowels regular; urine largely depositing lithates. Pulse about 100, regular, and of fair strength. Emaciation inconsiderable; cough troublesome, particularly at night; expectoration sanguineo- and muco-purulent, to which he had been subject previous to admission. Decubitus chiefly dorsal.

On examination the right chest was found to be rounded, and measuring half an inch larger than the opposite side. Intercostal spaces also slightly dilated, and tense. Vocal and tussive resonance abolished on the right side. Percussion afforded a dull sound over the entire right chest, both before and behind, but much more pronounced at the base. Respiratory murmur very feeble over the upper portion, but quite inaudible throughout the base of the right lung. Modified bronchophony and occasional muco-sibilant rattles obtained over the right scapular region. Position appeared to alter somewhat the intensity of the breath-sound, rendering it more distinct when the patient inclined upon his face. There was exaggerated respiration throughout the left lung.

The case having been regarded as one of chronic pulmonary induration, with effusion into the pleura, together with some bronchitis of the larger tubes, his treatment consisted of repeated blistering, mercury, and the free use of the iodide of potassium. These remedies, while they effected an improvement in the general health, failed in producing any marked change in the physical signs.

At this period (about five weeks after the patient's admission into the hospital,) he complained of pain below and beneath the false-ribs on the right side. Upon examination, a small, rather deeply-seated, pulsating tumour was discovered, about an inch to the right of the ensiform cartilage of the sternum. The tumour was unaccompanied by murmur, and was only slightly painful on pressure. At this time the expectoration had increased in quantity, of a dirty purulent character, largely mixed with blood, but without odour. Although empyema was suspected, still the physical signs remained unchanged, and no sound indicative of a fistulous communication with the pleural cavity could be detected on the most carefully-repeated stethoscopic examinations.

The patient continued in the same position for some days longer, expectorating copiously, but *without corresponding emaciation*, and with a continued good appetite. He now, at the usual visit, produced for inspection what he termed skins, which he had that morning expectorated, and similar portions, which also he said that he had been passing for some days per anum, mixed with the evacuations. On examining these membranes, collected both from the expectoration and from the faecal matter, they were found to be collapsed acephalocysts, containing in their interior the peculiar echinococci. The expectoration, and the occasional discharge of cysts, both through the lungs and bowels, continuing, an issue was inserted about

three inches below the right mamma, and cod-liver oil, with a very generous diet of meat and porter, were prescribed. Under this treatment the patient's health steadily improved, the discharge of hydatids ceased, together with the expectoration, and when he left the hospital, (April 1st, 1850,) both the tumours had disappeared, and a generally healthy condition of lung had obtained. This patient has since worked very hard during the late harvest, regardless of weather, and on meeting him a few days ago, he assured me that he continued in perfect health. I may add, that when I last examined his chest, the only abnormal physical indication was very slight insufficiency of the vesicular murmur.

CASE IV.

HYDATID TUMOUR OF LIVER, CONNECTED WITH THE KIDNEY: DISCHARGE OF HYDATIDS, Pus, AND BILE WITH THE URINE: RECOVERY.

Mary Stopher, aged 30, married, but has had no family. residing in the country, admitted into the Ipswich Hospital, June 13th, 1850. The history of this case was extremely obscure. She first presented herself as an out-patient, complaining of pain in the right inguinal region, with difficult and painful micturition. On examining a specimen of her urine which she had brought with her, it was found to contain both pus and hydatids in large quantities, and she was at once admitted as an in-patient of the hospital. She stated that four years ago, without any assignable cause, she first felt a "weight and uneasiness" in the right hypochondriac region, which has remained more or less permanent; and that for the last twelve months she had noticed a fulness and hardness in the same situation. She had also, at intervals during the past year, remarked that her urine contained (to use her own words) "skins mixed with corruption;" and that on these occasions she suffered very severe pain in micturition. She was a short healthy-looking woman, of a highly excitable nervous temperament. She also stated that she had been for some time under medical care, but that her symptoms had remained unchanged. With the exception of considerable debility her general health appeared to have suffered very slightly. The countenance was ruddy; conjunctiva and complexion generally slightly tinged with bile, but she had never had jaundice. Tongue clean; appetite moderately good; bowels regular; catamenial flow healthy; urine very variable, sometimes clear and limpid, at others largely depositing lithates, or again, containing a very considerable quantity of pus and hydatids, and occasionally bile. The acephalocysts varied from the size of a large walnut to that of a pin's head; the larger hydatids containing abundant specimens of echinococci. Her pulse was 80, rather weak. Heart and lungs healthy. On examining the body, a well-defined tumour of about four inches diameter was found protruding below the false ribs on the right side. It was not painful on pressure, neither could fluctuation be rendered perceptible. An interesting circumstance has

become evident, viz., that the tumour considerably diminished in size upon each discharge of pus and hydatids with the urine, and again refilled and resumed its original size in the intervals.

The treatment by cod-liver oil and issue having been apparently so signally beneficial in the case of Keeble, this patient was at once allowed a generous diet, with porter; an issue was established over the site of the tumour, and cod-liver oil was administered internally. Under these remedies the discharge, as in the former case, gradually diminished, the pus and hydatids subsiding simultaneously, while the tumour progressively became less, and she left the hospital well on the 24th of August, 1850, having been directed to keep a discharge from the issue, and to continue for some time longer the use of the oil.

I examined her side about a month ago, when no vestige of the tumour could be detected.

Observations.—In offering a few practical comments upon the preceding cases, I may first remark upon the somewhat singular coincidence of the occurrence in the same small hospital, within twelve months, of four cases of a decidedly rather rare form of disease, and which, in all probability, may not again obtain under similar circumstances for many years.

It is not my intention to enter upon the history and pathology of hydatid disease generally, as this subject is in the current numbers of our *Journal* undergoing so full and masterly an exposition at the hands of Dr. Duncan, of Colchester. One or two points, however, in reference to the preceding cases, call for a few passing observations.

The two first detailed are examples of solitary acephalocysts, containing no floating hydatids; and they are particularly interesting in reference to the treatment adopted and its results. The only two medicines, as stated by Dr. Budd, that have been supposed to have the power of arresting the increase of hydatid tumours are the iodide of potassium and common salt. The full exhibition of the former of these, both externally and internally, was steadily tried, without effecting the slightest change in the hydatid growth. This failing, the question of puncture was mooted, and subsequently had recourse to with signal success.

Notwithstanding the apparently innocuous properties of the limpid fluid contained in acephalocysts, few foreign matters coming in contact with the peritoneal surface, produce such rapid and intense inflammation of that membrane. "It would seem," says Dr. Budd, in his admirable work upon "*Diseases of the Liver*," "that the bursting of an hydatid tumour into the sac of the peritoneum, causes death as surely, and just as speedily, as the bursting of an abscess, or as perforation of the stomach and bowel."

With these facts before us, the question will naturally suggest itself, how far the practitioner is justified in risking the operation when the tumour is small, and productive of no distressing symptoms. Under these circumstances, non-interference will be, perhaps, advisable. When, however, the tumour is large, and steadily

increasing, and when from its size and position it causes distress to the patient, then I believe it will be proper to evacuate the fluid by trocar and canula, and with certain precautions, the operation may be considered as safe as the opening of a deep-seated abscess in a similar situation.

The points to be especially attended to in reference to the safety and well-being of the patient are, I believe,—1st, to maintain firm pressure below and around the tumour during the evacuation of its contents; 2nd, prior to removing the pressure to apply a compress and bandage firmly around the abdomen. 3rd; to insist upon the patient not only abstaining from all exertion, but even from speaking for at least twenty-four hours after the operation; and, 4th, to keep him under the decided influence of opium for forty-eight or sixty hours after the withdrawal of the fluid. With these precautions the evacuation of the contents of an hydatid cyst may, I believe, be undertaken with every prospect of a successful issue.

The third case, that of Keeble, is replete with interest, both in reference to the obscurity of the diagnosis and its happy termination in recovery. It will be seen that the patient dated his illness to cold caught eighteen months prior to his application at the hospital, and although he had been partially relieved, and even able to do some work, still at intervals cough and expectoration recurred, disabling him from following his employment as a labourer.

The symptoms and physical signs were essentially those of chronic pleuritic effusion, with condensed lung and bronchitis of the larger tubes, and until the expectoration of collapsed hydatids, such was believed to be the nature of the case.

The result of treatment hitherto, while it somewhat benefitted the general health, failed in producing any decided change in physical signs. At this period, *i. e.*, five weeks after his admission into the hospital, a small pulsating tumour was first discovered below and beneath the false ribs on the right side, and although the tumour itself was but slightly sensitive to pressure, he nevertheless now complained of constant pain and uneasiness in the right hypochondriac region. The tumour was unaccompanied by murmur, neither did its history predicate aneurism. Again there had been no distinct rigor, or other general disturbance, indicative of hepatic abscess.

The expectoration now became very profuse, bloody, and purulent; still the appetite continued good, and there was no corresponding emaciation. These symptoms we find persisting some days longer, when the evacuation of hydatids, both by the lungs and bowels, at once cleared up the nature of a previously very obscure case. The acephalocyst, in this instance, had probably compressed, and at the same time produced extensive and increasing irritation of the lung. This position, I think, we are justified in maintaining, from the circumstance of the comparatively speedy return of the organ to a healthy condition after the evacuation of the contents of the hydatid cyst. The inner surface of the sac of the parent hydatid had probably taken on

suppurative action, and subsequently made its way both into the bronchi and intestinal canal, while adhesive inflammation, forming union with the adjoining viscera, had been going on in the tissues surrounding the sac.

The above case beautifully illustrates the wonderfully adaptive power of nature in promoting a safe return to healthy function.

The history of the 4th case (Mary Stopher) was extremely obscure, and presented many points of great interest. The disease, as is usually the case with hydatid growths, was essentially chronic in its progress, giving rise at first to but slight uneasiness, which, persisting more or less for three years, was followed by intumescence of the right hypochondriac region. There we find suppurative inflammation, as in the former case, set up in the outer sac of the acephalocyst, which also becomes glued to the kidney by adhesive inflammation of the intervening tissue, and thus a communication is established through which channel the contents of the cyst, viz., pus, hydatids, and bile, find an outlet. The site of the hydatid tumour, and its communication with the kidney were established by the circumstance of the escape of bile with the urine, and the interesting phenomenon presented by the alternate decrease and increase of the size of the tumour, varying as it did with the amount of pus and hydatids discharged.

Had not the presence of bile in the urine indicated the hepatic origin of the tumour, it would have been more reasonable to have referred its probable site either to the kidney itself, or to its supra-renal capsule. It may also be interesting to observe that some of the hydatids discharged were entire, and contained a perfectly limpid fluid, notwithstanding the urine in which they floated was thickly purulent.

In reference to the medicinal management of hydatid formations, with a view to arrest their growth, but little satisfactory information can be advanced. In the treatment of the two last cases, which have been detailed, a very unmistakable improvement in each followed the establishment of a discharge from an issue inserted over the tumour, together with the internal exhibition of cod-liver oil.

Although we are not justified in forming deductions from two cases, still I would strongly recommend, when the evacuation of an hydatid cyst by operation is not deemed advisable, that, instead of wasting time and possibly debilitating the patient by giving mercury and iodine, we at once effect a free discharge by issue over the tumour, administer cod-liver oil internally, and support the strength at the same time with as generous a diet as the condition of the system will bear.

CASES OF CHOREA,

TREATED SUCCESSFULLY WITH CARBONATE OF IRON.

By T. BROWN, Esq., CASTLE DONNINGTON.

CASE I.—John Potter, aged 20, living at this place, by trade a painter, was placed under my care March 20th, 1847, a victim of chorea. The symptoms were unusually severe, and required the employment of

energetic measures. Copious depletion, from both the temporal artery and the median cephalic vein, was resorted to, and on account of threatened violence, a strait jacket was at once applied. So much were the voluntary muscles agitated, that when he attempted locomotion, his body was propelled in all directions, producing the most antic motions. When questioned he can only answer by monosyllables. After the copious depletion referred to, and the administration of some strong drastic cathartics, the violent symptoms greatly abated. During the three following days the violence of the symptoms continued abated, and the convulsive motions were chiefly confined to the upper and lower extremities. At this period, March 27th, I met Dr. Heygate, of Derby, in consultation on the case, and we agreed to administer the following:—*R. Hydr. Chlor., gr. v.; Conf. Rosæ Can. q. s., ut fiat pilula alternis noctibus sumenda.*—*R. Dec. Aloet Co., oz. iss.; Pot. Tart., dr. j. M. Fiat haust cras mane sumend.* *Ferri Carb., scr. ij., ter in die sumend.*

I may here mention, that I had for several days previous to Dr. Heygate's visit passed electric shocks through our patient without any relief, in fact I really thought the symptoms aggravated by the treatment. From the period that iron was administered, (the dose of which was gradually increased,) there was evident improvement in every respect, and on or about the 20th of April our patient was quite well.

CASE II.—Mary Mugliston, aged 9 years, was seized with chorea on or about the 10th of November, 1850, and the symptoms gradually increasing, on the 20th my assistance was required. I found my patient incapable of walking, speech was prevented, and the want of power over the voluntary muscles evidenced a true case of St. Vitus's dance. Judging from the apparent irritation of the pituitary membrane, in conjunction with anorexia, that the bowels gave lodgement to some vermes, I commenced the treatment of the case by giving half-drachm doses of *Ol. Terebinth.* on sugar, three times a-day, the result of which was the expulsion of a large worm, of the *lumbicus* species. Afterwards drachm doses of carbonate of iron, combined with small quantities of *Pulv. Curcumæ*, was given three times a-day, and the effects were most satisfactory, and to me very pleasing, the child's power over all the voluntary muscles gradually returned; and a singular feature in the case was, that *the tongue* never failed to indicate the progress of this most satisfactory return to perfect health, which occurred on the 29th of December, 1850.

MANSLAUGHTER FROM A BLOW ON THE HEAD WITH THE FIST, CAUSING FRACTURE OF THE INNER TABLE OF THE SKULL.

By J. DE ÁNE, Esq., CHATTERIS.

ON the afternoon of Saturday, the 28th of September, 1850, a labourer named John Ladds, was killed by William Germain, labourer, both of Chatteris. There was no previous malice; they had always before been on good terms as companions and fellow-workmen. A few angry words having occurred between them, Ladds