HYDATID TUMOURS:

TWO CASES ILLUSTRATING SOME OF THE DIFFICULTIES
IN DIAGNOSIS.

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CASE 1. *Movable Hydatid Tumour in the Abdominal Cavity.*

—B. H.—, aged eighteen, admitted to the hospital Nov. 3rd, 1869; ailing two years; general health good; complains of a "hard lump" in the abdomen, which, when first felt, was about the size of an egg, but has continued to grow until it is now about the size of a man's fist. On examination, a tumour is readily felt beneath the parietes at the upper boundary of the right iliac region; it is globular, smooth, and when grasped by the hand gives the impression of a hard fibrous growth. It is painless, and can be easily moved about in any direction. The exact diagnosis of the case was difficult, but it was agreed in consultation that it was not advisable to interfere by any operative proceedings. The boy was therefore dismissed from the hospital, but was requested to show himself about every two months, so that we might watch the progress of the case. He accordingly paid us two or three visits, but on these occasions there was no perceptible difference, except that the tumour continued to enlarge. The patient presented himself again on June 23rd. The tumour was then about double its size in November. It could still be floated about as before. The lower portion was hard and unyielding; but, on careful manipulation, we thought the upper portion softer and somewhat elastic. I had from the first suspected the tumour to be hydatid, although its hard, fibrous-like feel seemed to tell against the diagnosis. Now, however, that a portion gave the impression of elasticity, I determined on making an exploratory puncture. I therefore caused the tumour to be compressed between the palms of the hands of an assistant, so as to force it towards the parietes, and make the skin tense just over the point of exploration. I then plunged a fine exploratory trocar into the tumour, and drew off through the canula a fine stream of clear hydatid fluid. We obtained about half a pint of fluid, in which we detected large numbers of echinococci. On withdrawing the canula, we could find no trace of the tumour. The lad was sent to bed, and after four or five days he left the hospital, without having experienced the slightest inconvenience from the puncture.

Hydatids are much more frequently met with in South Australia than in England. It is seldom that we have not cases under treatment in the hospital. The case just narrated presents some points of interest with respect to diagnosis. I have never before met with a tumour of this kind which could be so readily pushed about in different directions. In this respect it resembled a floating kidney to such a degree that, when the patient was shown at a meeting of the Medical Association soon after he first came under observation, some members thought we might have to deal with a movable kidney enlarged by disease. The hard, fibrous-like feel of the tumour was also peculiar and deceptive; so much so that I should now doubt whether I was not deceived in November through defective tactile sensibility, had it not been that all the gentlemen who saw the case agreed on this point.

The advantages and comparative safety of exploratory punctures in cases of supposed hydatids are well illustrated by the result in this case. This is a practice we commonly follow in the hospital. We never wait for adhesions, as insisted on by Trousseau and some writers of the English school, and, so far as I have known, the punctures have never been followed by bad results.

CASE 2. *Hydatid in the Brain.*—On the 21st of May last I was requested by Mr. Carey, who was assisting me during the absence of my partner in England, to examine with the ophthalmoscope one of our patients who had been under his care during the previous five or six weeks. The patient was an intelligent-looking girl, aged about thirteen and a half years. She had never been strong, and about Christmas last she began to complain of headache and "a feeling as if something was moving in her head." Sometimes she

could not see distinctly; her gait was noticed at times to be unsteady; and she occasionally had fits of vomiting. Febrile symptoms succeeded; and in February she was placed under the care of the homœopaths, who pronounced the case to be one of gastric fever. The child gradually became worse until April 9th, when Mr. Carey took charge of her.

The following is from his notes of the case:—"She complained of great headache, and vomiting. The bowels were constipated; pulse 100, quick and compressible; temperature 102°; right eye blind, pupil widely dilated. In the left eye vision was imperfect, and the pupil larger than natural. She was ordered mustard foot-baths, cold lotions to the shaven scalp, a turpentine-and-oil enema, and two grains of oxalate of cerium every three hours. On the following day, the bowels having been freely opened, the head was relieved, and the vomiting had ceased. She had had slight convulsions, and the left arm and leg were found to be slightly paralysed.

"On April 11th the left eye had become blind, and the paralysis was more marked. From this time she was treated with blisters to scalp, iodide of potash, and chinchona. She improved for a time, and some power returned to the arm and leg. She could sit up, and on one occasion she walked a little."

A few days after this Mr. Carey asked me to examine her. I found her thin and pale, but free from all febrile symptoms. The left limbs were paralysed, but her consciousness and intelligence were perfect. She was able to sit up while we used the ophthalmoscope. Both eyes had lost all perception of light. The optic disc of the right eye had reached the stage of white atrophy; that of the left had the well-marked "woolly" appearance of optic neuritis, the margin of the disc was irregular, and a little below the disc were two or three white patches, not unlike what is sometimes met with in albuminuria; but on examination of the urine it was found free from albumen. My diagnosis was that the blindness was caused by intracranial disease, and that there probably existed a morbid growth on the right side of the brain. An hydatid cyst was mentioned, as well as syphilitic or tubercular deposits, as being sufficient to account for all the symptoms of the case.

At the latter end of May the child became worse; the headache, vomiting, and convulsions returned, and the patient died on June 11th. She retained her consciousness to the last. We were permitted to examine the brain on the following day. The cranium was very thin; the membranes of the brain thickened and vascular. On removing the dura mater there was seen peeping through the cortical substance of the upper part of the right cerebrum, to the extent of about half an inch square, a translucent membrane, through which fluid could be detected. We carefully punctured the membrane, and drew off about ten ounces of limpid fluid, in which the microscope revealed large numbers of echinococci. On cutting through the membrane we found a cyst about the size of a small orange. We were able to draw away the lining membrane entire, and on examination we found it studded with beautiful specimens of echinococci in various stages of development. The white substance of the right hemisphere had given place almost entirely to the hydatid cyst; the ventricles contained a small quantity of fluid. All the other parts of the brain were healthy. To the naked eye the optic nerves presented nothing abnormal.

Cases of hydatid tumours in the brain are few and far between. The one just narrated is reported on account of the early history and course being sufficiently complete to be of use in the diagnosis of similar cases. The student of cerebral pathology will also find points of interest in the connexion of symptoms with the well-defined lesion of tissue found after death.

While I have the pen in hand I wish to call the attention of microscopists to a peculiar appearance which, so far as I can ascertain in this part of the world, has not yet been noticed by observers in Europe. While examining the fluid from Case 1, about four hours after its removal from the body, I found several of the echinococci, with head and rostellum protruding, and still retaining vitality. Several groups were seen, each individual being attached to a portion of the germinal membrane by its funiculus. The contractile vermicular-like movements of these groups interested me, and while watching them I observed a rapid

movement just at the point of junction of the funiculus with the germinal membrane. At first I thought this was a movement of nutrient fluids from the membrane to the echinococcus; it had very much the appearance, under a low power, of the transmission of fluids as seen in some plants. On further observation with higher powers and careful illumination, I arrived at the conclusion that the motion was caused by the rapid vibratile action of cilia-like processes attached to the hydatid at the point indicated. As the parasites became weak and died, the motion ceased, and I have not had an opportunity of repeating my observation. With Beck and Beck's $\frac{1}{30}$ in. objective I obtained a fine view of the movements, but they were also distinct under the $\frac{1}{5}$ in. and $\frac{1}{3}$ in. glasses.

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REMARKS ON VERSION:

WITH A CASE IN WHICH THE PRESENTING ARM WAS
WRENCHED OFF IN THE ENDEAVOUR TO DELIVER.

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It is not very easy to say to whom, amongst obstetricians, the highest pæan ought to be awarded—whether to Paré, who taught the value of version; to Chamberlen, who gave us the forceps; to Desgranges, who rescued ergot from the women; or to Simpson, who introduced chloroform. For my own part, I rate Paré's work very highly, because I have found turning of incalculable value in the course of my practice, the most encouraging results being achieved by it. The forceps is, doubtless, one of the most invaluable instruments that was ever invented in connexion with our art; but, apart from its greater risks, as compared with version—that is, in high operations,—the unchallengeable fact remains that the hand, soft as the woman's parts themselves, will often succeed when the instrument utterly fails, and where the only other alternative is the sad one of craniotomy, which is of course, as regards the child, convertible with death. Of more than fifty cases of version in which I have been called to operate, in my own practice and in that of my brethren, six of them were of this nature—that is to say, the forceps were tried by dextrous hands, unsuccessfully, before the turning, which was successful, was resorted to. One of these cases, in which neither Professor Simpson nor myself could get the forceps applied, but in which I succeeded in turning, I reported in the *Edinburgh Medical Journal* for March, 1867.

Although version is the common proceeding in transverse presentations, in most cases of placenta prævia, in convulsions, flooding, &c., I believe it is not very generally resorted to in contraction of the pelvic brim. I may state that I am one of those who believe that it might be oftener adopted in such cases—that the bi-parietal diameter should be replaced by the narrower bi-mastoid,—in preference to the more critical high forceps operation. I have much confidence in version in such instances—a confidence inspired by almost unvarying success. In reporting one of the more recent cases of difficult version which have come in my way, perhaps I may be allowed to state one or two points which are, in my opinion, conducive to success in this operation.

Turning, I need hardly observe, is, in ordinary instances, as simple as the application of the short forceps; but where the liquor amnii has been long drained away, and the parts have become tumefied and dry; where the uterus is in a state of extreme tonic spasm, and grasps the foetus as in a vice, the case has deepened into one of considerable difficulty and danger. The operation may then even have become utterly impracticable, impelling to the unhappy alternative of perforation. The first thing to be done in such a case is, of course, to overcome the spasm. This should be most thoroughly done, otherwise we may be effectually baffled. For this purpose resort was wont to be had to bleeding, to tobacco, or to opium; now we have the more efficient drug, chloroform. This I ply the patient with, on to most complete anæsthesia (I mean in such difficult cases), and thus, as a rule, the tetanic uterus relaxes, and entrance is permitted.

I have seen one or two singular cases, where the chloroform failed to overcome the spasm; but these do not happen often. In such circumstances much help was obtained from tartarated antimony.* I repeat, to succeed, not to be baffled in these extreme instances, overcome the spasm in the most complete manner possible.

As regards the method of operating, I place the patient in the ordinary British left lateral position, with the nates brought a little beyond the edge of the bed, the knees well drawn towards the abdomen, the right one being well elevated. There is much difference among obstetric authors in reference to the most suitable hand to employ. Dr. Robert Lee, a most experienced author, recommends the right; the late Dr. Ramsbotham strongly urged the left; Sir James Simpson rather preferred the right; and Dr. Tyler Smith and Churchill also favour the use of this hand. As regards myself, I strongly recommend the left hand; and I may observe that I was in the habit of employing it before I noticed (which I did with much satisfaction) Dr. Ramsbotham's cogent reasons for preferring it to the right. The left has the following advantages:—1. It is usually rather smaller than the right (in my own case it is markedly so). The value of this is obvious. 2. The canal to be traversed is backwards, upwards, and somewhat forwards, and the left hand (and forearm) adapts itself to that curve much more easily than that of the right; that is, with the woman lying in the ordinary obstetric position. You cannot adapt the right hand and arm so well without bending the wrist backwards in an unnatural and uneasy degree. 3. The knuckles of the right hand hitch against the pubes, whereas in the case of the left they are received into the cavity of the sacrum. Lastly. In employing the left hand, the right is free to render important aid externally, either in the way of helping up the head or bearing down the breech. The influence of external manipulation is often very great. Dr. Braxton Hicks's method—the combined external and internal plan—has superior advantages in some cases, such as in placenta prævia and convulsions, and I have reported† a few such where its value was undoubted; but where the uterus is in the tensely spasmodic state, and invests the contained body almost as closely as the egg is covered by its shell, it is utterly impracticable. But I have another plan of my own which I frequently adopt, and which might be termed the combined internal method. It is this: with three or four fingers you grasp a foot, or the knee, and make traction downwards, while simultaneously, with the index-finger and thumb of the same hand, you push the presenting part, whether shoulder or head, upwards. A more speedy revulsion of the foetus is thus often accomplished.

I now subjoin a brief report of the case referred to at the head of this paper.

On the 20th May last Dr. Groves of Trinity requested me to see a woman in labour there, who had fallen under his care on being abandoned by another practitioner after an ineffectual attempt at delivery. It was a case of twins, and the first child, presenting naturally, was delivered without trouble. The second was an arm presentation (dorso-anterior); and the person in attendance, after employing a great deal of force, wrenched the presenting arm completely away. Whether he made any attempt to turn or not previous to the exertion of so much misapplied force is not known, for he remained out of the way after his disastrous failure. Dr. Groves was called after this, and arrived about four hours after the arm was severed. He found the parts so terribly swollen and bruised, and the uterus in such a state of spasm, and encircling the foetus so firmly and closely, that it was impossible to reach a foot. On my arrival, about twelve hours after the tearing away of the arm, I found the state of matters to be as follows:—Patient pale and exhausted; pulse rapid and feeble. On making a vaginal examination, I found the parts swollen and lacerated, hot, and besmeared with a dark discharge; the glenoid cavity, with a few ragged shreds of muscle surrounding it, presenting a little below the brim. Dr. Groves placed the patient deeply under the influence of chloroform, and I began inserting my left hand with the view of arriving at a foot. This was a laborious task, the hand having so little room to act, and being so firmly compressed between the

* I have referred to this potent antispasmodic power of antimony, where chloroform failed, in my *Manual of Materia Medica*.

† *Edinburgh Medical Journal*, Nov. 1869.