If a double ligature will suffice that is probably the best, taking care after dividing the pedicle to put a separate silk ligature on each open mouth. Some of the deaths from hæmorrhage have been attributed to a "small" vessel slipping from the main pedicle ligature, and the course I suggest will entirely frustrate this danger. At the same time it is very essential to ligature every bleeding point in any adhesions, for everything in this neighbourhood is usually very vascular.

In my successful case, every care was taken to tie any vessels and make everything secure, and yet the operation was completed in a little over half an hour. This, too, is important, not to keep the patient longer than is absolutely necessary under operation, and it is better to make a large incision so that the tumour may be easily removed and there may be ample room for dealing with the pedicle, with as little dragging and disturbance as possible.

When we consider that during the last thirty years, as shown by the table, the mortality with a larger number of cases has been reduced from 80 per cent. to 20.68 per cent. on the published cases, we may I think fairly say that splenectomy has a grand future before it, though the cases in which it must be demanded are few and far between; and it ought not in my opinion to be resorted to unless the patient's condition is such a miserable one as to demand it. Every other resource must be well tried first, though up to the present time the results of medical treatment in cases of true hypertrophy seem to have been most unsatisfactory.

The operation will probably be necessitated only in the case of injury and large tumours, non-malignant, whether solid or cystic; and I can hardly imagine its justifiability with the present rate of mortality, in any cases of small or simple movable spleens.

TWO CASES OF SUPPURATING HYDATID OF THE LIVER, PROJECTING BACKWARD, DRAINED THROUGH THE CHEST WALL AFTER RESECTION OF RIB.¹

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THESE two cases happened to come under my care almost at the same time, and they taught me so clearly the difficulties of diagnosis and of treatment that must always be present when a hydatid of the liver presses upward and backward, but not forward, that I venture to submit them to this meeting. The necessity of saving time must be my excuse for passing over similar cases reported by Mr. Tyson, of Folkestone, and other surgeons.

Instead of relating these two cases one after the other in the usual way, I will put the chief features of each case side by side, hoping in this way to show more clearly the conclusions to be drawn from them.

1. *Previous History of Case 1*—The patient was a gentleman, aged 30; he had lived in England nearly all his life, and had never been in Australia; he lived a quiet temperate life, and he had never had syphilis. His present troubles began seven years ago. He was on that occasion taken ill, somewhat suddenly, with sharp pain and tenderness in the region of the gall bladder, vomiting, and jaundice, and he was laid up for several weeks. He was seen by a physician, who diagnosed the case as one of small calculi or gravelly deposit in the gall bladder; and another medical man, who saw him about this time, was of opinion that the gall bladder could be felt enlarged. From this time onward he was subject to similar attacks, which occurred suddenly and at irregular intervals about twice a year. Between the attacks he was in his usual good health. In some of the attacks he was not jaundiced, but, with this exception, they were all much alike, sudden in their onset, slow to pass away, marked by severe pain and tenderness about the region of the gall bladder, with vomiting; and in the later attacks the pain used

to shoot round to the back and up to the right shoulder. In the autumn of last year (1894) he had an attack of unusual severity, which lasted many weeks; his pain was aggravated by obstinate constipation with accumulation of wind in the bowels. On his recovery he went to Worthing, and was under the care of Mr. Collet there. On December 13th he had for the first time a rigor. On the 21st he had another, and again on the 22nd; and on the 24th there were signs, not well marked, of a slight pleural effusion in front immediately above the liver; about this time also he began to be troubled with sweats, which were sometimes very profuse. But, strange to say, the signs of effusion passed away, and so did the attacks of sweating, and during the greater part of January and the first half of February his temperature was about normal, and he seemed once more convalescent. But on February 14th he again had a rigor, with temperature 102°, and in March his temperature was of a marked hectic character, 101° or 102° every night; he was frequently in pain, and was plainly losing ground.

Previous History of Case 2—The patient, a man aged 50, had served in the army but had never lived abroad. He had, many years ago, had syphilis, and he admitted that he had been given to drink. Two and a-half years ago he had been in the West London Hospital for five weeks; his board had been headed "hepatitis." He suffered on that occasion from pain in the region of the liver, shooting up to the right shoulder; this pain was said to be continuous, not paroxysmal, worse on deep inspiration; he also had pains in the bowels. Shortly before his admission he had been jaundiced. He complained also of pain in his right side, and it was noted that he had some tenderness over the ninth rib, and that there was "a doubtful feeling of fulness" on that side. For three weeks his temperature was of a hectic character, rising to 101° or 102° every night. Then the fever ceased; the pain also ceased, and he left the hospital. For two and a-half years nothing was heard of him. Then he came back, having had a second attack of jaundice, followed by the return of his old pain, and he was admitted into the hospital on May 3rd.

2. *Condition of Case 1 just before Operation*.—This patient, though he did not appear in immediate danger of his life, was very weak and feverish, restless and depressed, suffering from acute lancinating pains not only in the region of the liver, the right side, and the right shoulder, but also up the spine to the back of the head, and down the backs of both thighs to the calves. There was no enlargement of the front of the liver, nor could its edge be felt below the ribs, nor was there any increase of the liver dulness in front. Behind, in the line of the angle of the scapula, there was slight dulness over the lower ribs, from the seventh to the tenth, and the intercostal spaces here felt somewhat firmer than natural. And it is worth noting that when this area was percussed, the patient himself felt a distinct thrill or impulse in the region of the liver. The significance of these signs and of the whole history of the case was pointed out to me by Dr. Douglas Powell, who kindly saw the patient more than once, and made the diagnosis of suppurating hydatid.

Condition of Case 2 just before Operation.—This patient was now desperately ill, having refused operation up to the last moment, and he had taken a great change for the worse in the last twenty-four hours. He was, moreover, in every way a bad patient for operation; he had been given to drink, and though he was only 50, his arteries were atheromatous, and he had marked arcus senilis. Worst of all, there were signs that peritonitis had set in. For eight days his temperature had been ranging from 100° to 103°, and had now fallen suddenly. His tongue was dry, his pulse quick and weak; he was jaundiced; he suffered with frequent vomiting and persistent diarrhoea, and was utterly exhausted. His liver, which had been well below the ribs on admission, was now 3½ inches below them in the nipple line, and its vertical measurement in this line was 6½ inches, but the surface thus exposed did not feel tense, nor did it raise the abdominal wall over it to any marked extent. In the mid-axillary line the dulness began at the lower border of the seventh rib. The breath sounds at the base of the lung were normal. His general condition seemed almost hopeless; his face was drawn, his breathing shallow and painful, his abdomen tense and distended. Dr. Ball, who has kindly let me report

¹ Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in London, July-August, 1895.

this case, had in vain urged operation to the patient; he had steadily refused it till it now seemed impossible that he should recover after it.

3. *Operation in Case 1.*—This was done on March 28th, with the advice and help of Dr. Douglas Powell, Mr. Edgar Willett, and Mr. Meakin. I began by putting in an exploring syringe through the ninth space, just below the angle of the scapula; the needle was thrust straight forward for $3\frac{1}{2}$ or 4 inches, and was felt to enter a cavity, and pus was drawn off at once. I left the needle of the syringe *in situ* to serve as a guide, in accordance with Mr. Godlee's teaching, and resected 3 inches of the ninth rib, in the line of the angle of the scapula. It was necessary to resect the rib thus freely, as the subcutaneous fat was of considerable depth, and it was of great importance to have plenty of room to work in. The pleura was freely laid open, and a quantity of air was sucked into the pleural cavity with each inspiration. There were no pleural adhesions, and no fluid in the pleural cavity. The lung was not seen. The diaphragm was very tense, and was pushed up so high that it was almost vertical; it moved in respiration, but not freely. There was a clear space, from half an inch to an inch, between it and the chest wall. In accordance with Mr. Godlee's teaching, I stitched the diaphragm to the pleura, so as to shut off the pleural sac, using a strong curved needle on a long handle, and putting in two stitches, one for each edge of the incision through the pleura. The needle must be passed first through the diaphragm, taking firm hold in it, and then through the pleura; it was impossible to pass it the reverse way, as the diaphragm kept moving out of reach. Then I incised the diaphragm between the stitches, punctured the cyst, dilated the opening, laid the cyst freely open, and fastened it in the wound. About a quart of purulent fluid and cysts was let out. The cavity was well washed out, and drained with a very large tube.

Operation in Case 2.—As the liver reached downward for three and a-half inches below the ribs we hoped that we should get at the cyst by an anterior incision. I therefore opened the abdomen through the right rectus muscle. More than half a pint of turbid fluid mixed with lymph escaped from the abdominal cavity. The parietal peritoneum was slightly roughened, the liver itself was smooth, lax, and of the natural shape; it was evidently depressed by some growth in the upper posterior part of it. I explored it in two places to a depth of two or two and a-half inches with an exploring syringe, but nothing came but blood. The punctures kept oozing; this was stopped by putting a fine stitch through each of them. I now made a small incision over the dull area behind, and thrust the exploring syringe well forward through the eighth space in the posterior axillary line, and drew off pus. I left the needle *in situ* to serve as a guide and closed the anterior incision and resected two inches of the ninth rib in the posterior axillary line. As the bit of rib was being removed we heard a faint whistling of air, as if there were a small wound of the pleura, but this stopped as soon as the bit of rib had been removed. I came straight down on the naked fibres of the diaphragm close to their insertion into the tenth rib and I did not see the pleura at all. I incised the diaphragm, punctured the cyst, and laid it freely open, letting out a large quantity of turbid fluid and cysts. A large tube was put in and the patient was got back to bed with all possible speed as he was very badly collapsed.

4. *Result of Operation in Case 1.*—This patient did well steadily, after he had once recovered from the shock of the operation. The day after the operation the lung seemed acting well, and no trouble came of the air that had been drawn into the pleural cavity. The pulse varied most, ranging from 68 to 110; the respiration was always between 18 and 22; the temperature only once rose to one degree above normal. The discharge was profuse, sometimes mixed with bile, or with shreds and strips of membrane. The drainage tube was finally left out just four weeks after the operation. When I last heard of him, three weeks ago, he was in excellent health and strength. He had then a very narrow straight sinus about 3 inches long, but nothing came from it, and it gave him no trouble.

Result of Operation in Case 2.—The account of this patient's condition just before operation shows that we had to deal with a case that was already hopeless. At the operation we

found, as we had expected, that acute peritonitis had already set in; he never rallied, and died about 20 hours after the operation. *Post mortem*, a large thick-walled hydatid cyst, 8 or 9 inches in diameter, grew from the upper posterior aspect of the right lobe of the liver. It was still nearly full of cysts of all sizes. No part of its wall could have been reached through the front of the liver. There was peritonitis with effusion, and in the right pleural cavity there was about a pint of sero-purulent fluid with flakes of lymph floating in it. This had evidently been effused some time before the operation.

REMARKS ON THE TWO CASES TAKEN TOGETHER.

First, as regards diagnosis. The first case had been diagnosed seven years ago as a case of disease of the gall bladder. The second case had been diagnosed two years and a-half ago as a case of hepatitis. There were many reasons why a right diagnosis was at first quite impossible. The disease in both cases advanced, not regularly, but by fits and starts; a short, sharp attack of illness was followed by a long period of apparent health. The first patient had many attacks of this character; the second had an interval of two years and a-half between his first attack and his second. Again, there was no bulging or tension of the liver in front in either case. In the first patient the liver never came below the ribs to any notable extent, and at the operation could not be felt below the ribs at all. In the second patient it is true that the liver descended far below the ribs, but there was no projection or tension; it just came down as it would in a case of simple enlargement of the liver.

Six things at last showed that the original diagnosis was wrong in each case:

1. The occurrence of rigors.
2. The occurrence of frequent attacks of sweating.
3. Diffusion of the pain beyond its original limits; at first the pain was felt only in the region of the liver; then it radiated to the shoulders; finally, as years went on, it was felt in the spine and along the great sciatic nerves.
4. Increase of pressure upward and backward on the pleura and on the diaphragm, leading to shortness of breath, loss of appetite, and vomiting, and finally revealing itself by slight increase of dullness in the lines of the posterior axillary fold and of the angle of the scapula.
5. The temperature during the last few weeks before operation in each case was that of suppuration. In the first case the temperature rose every night to 101° or 102° ; in the second it ran high, both night and day, for a fortnight.
6. In spite of most careful treatment and nursing both the patients were going steadily down hill, losing flesh and strength and sleep and hope, with a steady increase of fever and of pain.

Next, as regards the operation. I leave out of consideration the attempt made in the second case to reach the disease by an anterior incision. As regards reaching the disease from behind, the important question is this: Shall I go through the pleura, and shut it off by stitching the diaphragm to it before opening the cyst, or shall I be able to reach the cyst without opening the pleura? Now, from several observations which were made in the *post-mortem* room by Dr. Risien Russell (to whom I wish to express my gratitude) and by myself it appears that if one opens the tenth space, either in the posterior axillary line or in the line of the angle of the scapula, one would probably, but not certainly, open the pleura. Of course it might be possible to reach a cyst, placed as these were, by making an incision below the tenth rib; but the lower one goes the greater is the risk of getting below the cyst altogether. It seems (so far as two cases can prove anything) that one should be guided by the indications given by percussion. Where dullness can clearly be made out there the exploring syringe should be put in and thrust well forward. If it draws off pus, then one should go along its track, even though it involves laying the pleura open.

ALCOHOLISM IN FRANCE.—The following statistics by M. Magnan give an idea of the prevalence of alcoholism in the department of the Seine. Among 3,740 patients (2,072 men and 1,668 women) admitted to the Sainte Anne Asylum in 1894, there were 775 suffering from alcoholism; of these, 624 were men and 151 were women.