

very large bloodvessel in the left broad ligament, which was tied and burned, as it seemed to be the main arterial supply to the tumor. In applying the ligature to the pedicle use was made of a pair of enormous double hooks made for the purpose, by means of which, through a tackle and blocks, the tumor was held suspended from the ceiling sufficiently to allow the manipulations at the base of the tumor without interference from its size and weight. During this part of the operation the intestines escaped from the wound, very unfortunately, and were exposed eight minutes to the air, although covered with a carbolized towel. It was found extremely difficult to replace them on account of the tight contraction of the abdominal muscles. The incision was carefully closed about the pedicle and the wound dressed with iodoform and gauze in the usual manner. The operation lasted forty-five minutes. The tumor was pronounced by Dr. Fitz to be a lymphangiectatic fibromyoma.

During the following days the most troublesome symptom was vomiting and flatulence, much gas escaping from the mouth. Nothing whatever passed rectum. The temperature gradually rose from 101° the first night to 104° the night of her death, which took place March 19th. The abdomen became very much distended, and vomiting was incessant. The question whether there was some obstruction to the intestine was constantly in my mind, but the impossibility of making a diagnosis between that and a general peritonitis, with the experience of others in such cases, led me to delay in the hope that nature would unravel the difficulty, and especially from the fact that reopening the abdomen in such cases has been almost invariably fatal. Moreover, many recoveries have followed where the symptoms were fully as bad as in this case. I therefore did not interfere till the last day, when I explored the wound and the parts immediately subjacent without finding anything to be remedied. At this time the patient was moribund. Death took place the same night.

My assistant made an examination shortly after death (twenty minutes), and gave me the following report, which I was unable to verify, having been called away for two days.

"The abdominal wound was enlarged up to the ensiform cartilage and downwards to the pubes. An examination of the intestines showed a twist in the gut about the middle of the small intestine. Below the twist the intestines were entirely collapsed, and above were distended with gas. At the point of stricture the intestine seemed to be twisted upon itself, and was black and gangrenous, extending above and below about four inches, gradually fading to the normal of the rest of the intestines. There was no pus in the abdominal cavity, and no opening into the intestine could be discovered."

This condition could have been remedied, of course, had it been possible to make a correct diagnosis. The difficulties in the way of such a diagnosis are certainly very great, and the fact that cases recover after these severe symptoms have been present some days make one much more reluctant to interfere than he might otherwise be. I do not see how this could have been avoided, and I am sure if I was to repeat the operation under the same circumstances I should use the same precautions in replacing the bowels that I did in this case with such disastrous consequences. It

is very important that the intestines should be restrained from escaping, and I think that hereafter I shall have an assistant whose sole duty shall be to prevent such an occurrence.

PLEURISY WITH EFFUSION.¹

BY THOMAS F. SHERMAN, M.D.,
Physician Boston Dispensary.

I BRING the following cases of pleurisy with effusion before the Society to-night, not with the expectation of adding anything to the knowledge which the members may already possess, but rather in the hopes of being myself instructed, in the discussion of the paper, as to the efficacy of the usual routine treatment of effusions, and as to the proper time in the course of the disease when operative interference shall be deemed advisable, whether aspiration should be performed, as some authors advise, as soon as physical examination can detect an effusion, or is to be regarded, like tracheotomy, as a *dernier resort* in cases where danger to life is imminent.

CASE I. In January, 1884, I was called to see Mary D., aged five years, and obtained from her mother the following history. She had always been a healthy child up to a year ago, when she had broncho-pneumonia following measles; since then she has been well till during the last four weeks, when her mother noticed that she was losing flesh and was unable to run or talk fast owing to shortness of breath; she has had a dry hacking cough, and has been feverish at night.

Physical examination showed a poorly nourished child with flatness on percussion, below the level of third rib, over the left front and axillary region, and below the spine of scapula behind, with absence of respiratory sounds and vocal fremitus. The apex of heart was displaced one inch to the right of mid-sternum. Pulse 132, respirations 40, and temperature 101°.

She was kept in bed, fly blisters applied to the lower part of left back, and three grains of the iodide of potassium given every four hours.

This treatment was followed for four days without producing any improvement in either the rational or physical signs. Believing that the effusion had already lasted three weeks, or more, and that it would not be prudent to allow it to remain longer, on January 28th, I punctured, first with my exploring needle attached to a hypodermic syringe, and then with the aspirating needle, one inch below the angle of scapula and drew off a pint of clear sero-fibrinous fluid. She was then given half a teaspoonful of the camphorated tincture of opium to relieve coughing. The next day the child was very comfortable, the apex of heart was almost back in normal position, and there was good resonance and respiration in front as low as nipple; behind there was still flatness and absence of respiration below the angle of scapula. She was ordered the tincture of chloride of iron and malt extract, and continued to improve uninterruptedly, although it was two months before there was good resonance and audible breath sounds below the angle of scapula.

I saw her one week ago and she was still in good health, and no abnormal sounds were found in chest by auscultation or percussion.

¹ Read before the Boston Society for Medical Observation, April 4, 1887.

CASE II. Miss R., aged thirty, attributes her present illness, which began two weeks before I saw her, to exposure while taking in clothes during a rain. When I first saw her, February 9, 1884, she had been in bed a week, complaining of pain on inspiration over right side, less severe than at first, shortness of breath, cough, with whitish expectoration, loss of appetite, alternate flashes of heat and cold, no chill.

Physical examination showed the presence of a bronchitis with a moderate effusion on the right side. Pulse 105, temperature 102°, respiration 26. She was given the iodide of potassium, ten grains four times a day, with the extract of elaterium, an eighth of a grain every two hours till free dejections. The next day she was feeling more comfortable, had had numerous watery dejections and was breathing much easier. On February 12th, fair respiration was heard over the whole of right front and over the right back to an inch below the angle of the scapula. She continued to improve till February 15th, when being disturbed by a blind rattling in the night, she imprudently got up, fixed the blind, and then went back to bed again, feeling cold and chilly.

On seeing her the next afternoon I found her much worse, and physical examination on the day following showed flatness over the right front and axillary regions, below second rib, with bronchial respiration and bronchophony under the right clavicle.

Apex of heart was one inch beyond the mammary line, edge of liver felt below the ribs. Pulse 112, respiration 34, temperature 102°.

The extract of elaterium was ordered as before, but this time did not cause any diminution in the effusion.

On February 18th, the physical signs remaining the same, I aspirated below angle of scapula and drew off two quarts of clear fluid, without trouble. That evening I was suddenly called to see her and found her breathing at the rate of fifty per minute, respirations shallow and painful, physical examination showed no return of the effusion, and on injecting an eighth of a grain morphine, subcutaneously, the respirations soon fell to thirty per minute, and she spent the rest of the night very comfortably. She had no further trouble after this, the temperature, pulse, and respiration gradually falling till they became normal in about five days. She has been in good health since then up to the present time.

If we are to consider in this case and in Case I that the pleurisy was not a disease *per se*, but a symptom of tuberculosis, as some German writers maintain, it would seem that in three years other symptoms should arise, or, as Dr. Shattuck has said, that tuberculosis is recovered from more frequently than is commonly supposed.

CASE III. B. M. was a stout, well-built man, aged twenty-eight, of good family history, and a blacksmith by trade. He says he has never known what it was to be sick, and now consults a doctor for the first time, to be relieved, if possible, of a shortness of breath, which has been gradually increasing during the last three weeks, till he is unable to swing his hammer without getting out of breath, and having to rest afterwards. His appetite is poor. He has a slight, dry cough. Has not been confined to his bed, and has worked up to two days before I saw him.

Physical examination showed the presence of a large effusion on the left side, extending anteriorly above level of third rib, and behind to an inch above

spine of scapula. The left intercostal spaces were bulging, with apex of heart almost two inches to the right of sternum. Temperature 99°, pulse 90 and intermittent; respirations 34 to the minute when he was quiet, but becoming rapid on the least exertion.

Feeling that this was a case where the heart was impeded in its work by the amount of the effusion, and that any delay might prove dangerous through sudden paralysis of the heart, I made arrangements to see him later in the day, when I slowly removed, by aspiration, a little over three pints of clear serum before I was compelled to desist by his complaining of a feeling of constriction across the chest. He was given brandy, and the carbonate of ammonia ordered in ten-grain doses, every four hours. The next day the heart was beating regularly, with the apex mid-sternum, and in about a week later, he was able to return to his work.

CASE IV. H. D., aged nineteen, clerk, was seen in January, 1885. He had been complaining for a month of progressive loss of flesh and strength, with shortness of breath on exertion. His family history was good.

On examination, a large effusion was found occupying two-thirds of left chest, with apex-beat to the right of mid-sternum. During the next three days he was given the iodide of potassium, and the back painted with tincture of iodine morning and night.

The effusion showing no signs of being absorbed, I then punctured the chest twice with the aspirating needle, the first time unsuccessfully, owing probably to the puncture being made too low down, the second time withdrawing about a quart of fluid. The rest of the effusion disappeared in the course of a week, and he soon afterwards returned to his work. I saw no more of him for five months, when he again appeared at the office, complaining of the same symptoms as before. Examination this time, however, showed well-marked disease at left apex, which ended fatally in about three months. In this case, the pleurisy was probably only a symptom of tuberculosis, although I believe that it is now admitted that a long-continued effusion may indirectly cause lung disease, as well as be produced by it.

CASE V. On December 17, 1886, I was called to see Mrs. M., aged twenty-eight, who gave the following history: She had always been well up to four days ago, when she got her feet and clothes wet. Since then she has felt cold and chilly, with headache and general malaise. The day before I saw her she had had a chill in the afternoon, followed by a second one at night. Has had a dry cough, with pain under right nipple. Examination showed diminished resonance over the lower right back and axillary region, with feeble respiration; no râles. Temperature 102°, pulse 110, respirations 26.

Dover's powder ordered at night. The next day she reported that she had rested well. Examination showed flatness and absence of respiration below angle of scapula posteriorly, and below fifth rib anteriorly. During the next week the effusion increased gradually, with slightly higher temperature at night, till, on December 27th, ten days after I had first seen her, it had reached the third rib in front, and the spine of scapula behind. The apex of heart was outside of the mammary line. Measurement of the left side, from centre of sternum to the centre of spine, was fifteen inches; of the right side, sixteen inches.

The treatment up to this time had been mainly expectant, liquor ammonii acetatis being given during the day, with Dover's powder, when required, at night. On December 27th, patient had three watery dejections, and, believing that nature was thus indicating an outlet for the effusion, I ordered her to take half an ounce of epsom salts, dissolved in as little water as possible, the first thing the next morning—the treatment laid down by Professor Hay. This produced twelve loose dejections, which left the patient feeling weak, but breathing much easier, the respirations falling from 34 to 24 per minute, and the apex of heart swinging back almost to its normal position.

From this time on there was an improvement in all the signs, till January 8th, a little over three weeks from her first attack, when she was able to go out. At this time, there was still dulness and diminished respiration over the lower half of the right back, due, probably, to the thickened pleura.

From the above cases, and from the numerous authorities whom I have consulted, and to whom I am indebted, I would draw the following conclusions:

That acute pleurisy with effusion runs a certain more or less definite course, and cannot be aborted by any of the remedies now in use; and that the treatment, during the first ten or twelve days of the disease, should be purely symptomatic, including, by that term, the use of the aspirator, if required, as well as the administration of drugs.

At the end of that time, when the effusion seems to have reached its height, and the fever is beginning to abate, the treatment by saline cathartics, first introduced by Professor Hay, and recently recommended by Professor Osler, seems to be the most successful. This treatment consists in giving a concentrated solution of the salt at such a time when the intestinal canal may be supposed to contain little, if any, fluid. The usual plan is to tell the patient to take nothing liquid after supper, and to take, the first thing the next morning, about half an ounce of the sulphate of magnesia, dissolved in an ounce of water, and not to drink anything afterwards till dinner. This usually causes numerous watery dejections, with a subsequent diminution in the amount of the effusion. Should this not be the result, I would order an ounce of the magnesia, to be taken the next morning. Should the effusion still remain the same, I would aspirate without further delay.

In cases of chronic effusion, if no urgent symptoms were present, as marked dyspnoea, cyanosis, irregular or very feeble pulse, I would try the saline cathartics first, and then aspiration.

I believe that every case of pleurisy with effusion should be watched as carefully as we do a pregnant woman with placenta prævia, having the aspirator in working order, and ready for use at an instant's notice, bearing in mind that any effusion, large or small, is bad for the patient, and may suddenly become dangerous with but little warning, while aspiration, thanks to Dr. Bowditch, has been proved to be harmless.

As there are no signs of an effusion which may not be simulated by other morbid conditions of the chest, and this is especially true in children, where physical examination is often misleading, owing to imperfect lung-expansion, every aspiration should be preceded by an exploratory puncture, using the ordinary hypodermic syringe, with a long, stiff needle, to avoid the danger of its breaking within the chest.

In these days of bacilli and micrococci, it would be needless to say that all instruments should be properly disinfected before using, thus avoiding many of the dangers formerly ascribed to the admission of air within the chest.

The aspiration, as Dr. Bowditch has taught, should be slow and gradual, not removing more than two or three pints at a time, and ceasing at once when the patient complains of any distress. It should be performed without ether, the puncture being made below the angle of the scapula, or in the middle axillary region, with the patient in a sitting position, unless there is cardiac weakness, when the recumbent position is to be preferred.

The dangers commonly ascribed to aspiration come, I believe, either from its being improperly performed, or from its being too long deferred. With proper precautions, I know of no contraindication to its employment. The reflex paroxysmal coughing often following aspiration may be relieved by an injection of morphine subcutaneously.

Reports of Societies.

BOSTON SOCIETY FOR MEDICAL OBSERVATION.

CHARLES P. STRONG, M.D., SECRETARY.

APRIL 4, 1887, DR. BOLLES in the chair.

DR. M. H. RICHARDSON presented a paper upon

A SERIES OF ABDOMINAL OPERATIONS.¹

DR. MIXTER thought the entire absence of any septic element in these cases was evident. In the last case, the accident might have been due to tenseness of the recti muscles, due to insufficient etherization. The manner of treating the pedicle by an elastic ligature, although common in Germany, was not used here.

DR. FITZ said it was more probable that the twist occurred during reaction than at time of operation, even if it were the cause of death.

DR. DAVENPORT alluded to the success attending cases recently reported, in which thorough evacuations were secured by Seidlitz powder and enemata—a practice directly the opposite from the universal employment of opium.

DR. RICHARDSON thought the length of the incision was not an important factor in fatality. The rule should be to make an incision large enough for easy delivery of the tumor.

DR. NEWELL said that the true source of trouble in cases where the intestines prolapsed was absence of profound anaesthesia. This is the great advantage we possess in the employment of ether, instead of chloroform.

DR. T. F. SHERMAN presented a paper upon

PLEURISY WITH EFFUSION.²

DR. FOLSOM advocated the aspirator, rather than cathartics, and an early, rather than late aspiration. With reference to the occurrence of tuberculosis secondarily, he cited two autopsies: one of a lady in middle life, who had double pleurisy, when five years old, on the right side. She was tapped, resulting in

¹ See page 225 of this number of the Journal.

² See page 228 of this number of the Journal.