CLINICAL LECTURE

ON

TWO CASES OF PERIHEPATIC ABSCESS
BURSTING THROUGH THE
RIGHT LUNG.BY A. T. H. WATERS, M.D., F.R.C.P.,
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GENTLEMEN,—I wish this morning to call your attention to the case of Charles O., who was in No. 10 ward, and who suffered from a very unusual form of disease. There is another case of a similar kind, which occurred in my practice at the Northern Hospital, to which I will also allude.

The man, C. O., was the subject of a perihepatic abscess; not an abscess forming in the substance of the liver, but behind it, and which had found its way through the diaphragm into the right lung; the matter from it becoming expectorated. I need not tell you that cases of this kind are very rare. Abscess of the substance of the liver is more common. In this country, however, it is scarcely ever seen, except in those who have been in tropical climates and have there contracted the disease. What are called pyæmic abscesses are more frequently met with. A man has pyæmia, and abscesses may form in any part of the body—in the lungs, in the liver, or elsewhere. But the abscess which results from hepatitis or perihepatitis is generally of tropical origin. The man of whose case I wish first to speak was twenty-nine years of age. He had followed the occupation of a carter, but had previously been in the army, and had served in tropical climates. He had suffered twice from dysentery—and I wish you to bear this fact in mind—once in 1858 and again in 1870; on the latter occasion, the disease lasted only a month. He was admitted into the Infirmary, under my care, on December 18th, 1875. He told us that his illness began six months before admission, with pain in the right side and cough. He was confined to his bed for five weeks, and then he remained fairly well for six weeks, when, his symptoms returning, he was admitted into the Infirmary, under one of my colleagues. He remained here till November 6th, and during his stay, he spat up some blood. He was re-admitted under my care, as I have already said, on December 18th. The family history of the man was good, and I could find no indication of constitutional taint, tuberculous or syphilitic. He was much emaciated, very weak, pale, and somewhat sallow; but there was no jaundice. The day before his admission, he spat up, he said, a large quantity of blood. On examination, we found the tongue red and somewhat furred; the bowels were loose; the temperature was 100 deg., and the pulse 120. There were no night perspirations; and the urine was normal. He complained of severe pain in the right side over the liver, increased on inspiration, and of a constant pain in the right shoulder. There was also pain on percussion in the infraaxillary and lower dorsal regions. The area of hepatic dulness was slightly increased upwards behind. There was dulness, not very marked, over the back of the right lung, beginning at the lower angle of the scapula. Towards the extreme base, the dulness was more decided. Puerile breathing was heard over the whole of the left lung and the front of the right, with bronchial breathing, coarse crepitation, and bronchophony over the lower part of the latter below the inferior angle of the scapula. Over a large portion of the right lung bronchial vibration was felt, indicating the presence of a good deal of fluid in the bronchial tubes. The expectoration was of a peculiar character; it was copious, somewhat frothy, bloody, purulent, and rather tenacious. It had somewhat the appearance of the sputa met with in some cases of pneumonia with gangrene, but it was not foetid. There was a peculiarity about the mode of expectoration. The sputa were not ejected as they usually are in pneumonia, but in large mouthfuls, and, at times, in large quantities, with long intervals between the ejections.

Now, what was the disease from which this man was suffering? Was

it pneumonia of a low form terminating in abscess; or phthisis, with a cavity into which blood and pus were being poured? Or was it an abscess connected with the liver, which had burst into the lung? There was a history of dysentery, and the man had been in a tropical climate, circumstances which might induce some disease of the liver. Having already seen two cases where the symptoms had been very similar to those I have detailed—one of which terminated fatally—to which cases I will refer shortly, I did not hesitate to express an opinion that the man was suffering either from an abscess of the liver, or one that had formed between the liver and the diaphragm, and had burst into the lung. I inclined most to the latter view.

As regards the treatment of the case, I may say that the man was put on quinine and sulphuric acid, with a moderate amount of stimulants.

I have alluded to the way in which the patient expectorated, and I find a note to the effect that the sputa were brought up at intervals, and in large quantities. The man would cease to expectorate for many hours—twelve, and in one instance twenty-four—and then, all at once, he would cough up a large quantity of bloody purulent matter. Evidently there was a cavity, the communication between which and the main bronchial tubes became occasionally closed; the cavity then filled, and copious expectoration followed. The temperature of the patient never rose very high. On December 19th, the pulse was 120, and the temperature 100.7 deg., and, I believe, it never rose above 101 deg.

I need not dwell on the progress of the case. The man became gradually worse; he continued to expectorate the same kind of matter almost up to the time of his death, except that on some days it was free from discoloration. The sputa were examined to see if any lung-tissue were present; but I said that, the abscess having burst into the lung, the latter would be disorganised, and yellow elastic tissue might be discovered in the expectoration. This was found to be so, but it did not at all alter my opinion of the case. We gave the man opium to relieve the pain, and continued the quinine and acid, and stimulants, with as much food as he could take. My object was to carry the man on so that the abscess might discharge itself and close; and I hoped that by supporting him well, this result might possibly be accomplished; but the disorganisation of the lung, as revealed at the *post mortem* examination, was too great to admit of recovery. The patient died on January 7th, 1876, and the necropsy was made on the same day; and before I read the notes of it, let me again remind you that the man had suffered from dysentery on two occasions.

Necropsy.—The left lung was very large and emphysematous, filled with frothy mucus, and non-adherent. The right lung was adherent by its lower lobe; between it and the liver there was a collection of muco-purulent sanious matter; the cavity containing this indented the right lobe of the liver, forming a depression three inches in circumference, and one inch deep. It was lined with a membrane nearly one-eighth of an inch thick. The substance of the liver was not involved. The abscess thus situated, was continuous through the diaphragm, with a large cavity in the lower lobe of the lung filled with muco-pus, and communicating with the bronchi. Portions of lung at the surface were oedematous. The kidneys and spleen were healthy. The colon was contracted; its muscular coat was thickened, and its mucous membrane puckered, congested, and thickened. The mesenteric glands were enlarged. The small intestines were slightly dilated.

In this case, an abscess had formed at the back of the liver, not involving its substance, and had found its way through the diaphragm into the right lung. Now let me refer you to another case of a similar character.

Louis St. L., a ship's cook, was admitted into the Northern Hospital, under my care, on October 27th, 1870. He had come from the Coast of Africa, and had suffered from pain in the right side for three or four months. He had been spitting blood, he said, for about a month, but previously there had been no cough. No doubt at the time the cough and hæmoptysis occurred, the abscess which the necropsy revealed burst into the lung. The man was much emaciated and very weak when admitted; and he was bringing up a large quantity of sputum, similar to that which I have described in connection with the last case; it was reddish, muco-purulent, and somewhat frothy, but free from fœtor; it was expectorated in large mouthfuls, and easily. On examination, we found a fulness at the lower part of the right side of the chest, and there was some crepitation over the middle of the right lung behind; but at its base, the respiratory sounds were inaudible. The pulse, on admission, was quick; the temperature was not taken. There was no jaundice.

I must confess I was in doubt as to the nature of the case. Was it a low form of pneumonia, which had terminated in abscess? Or was there an abscess commencing elsewhere, which had found its way into the lung? Had the case commenced as hæmoptysis which had been

* From short-hand notes, by Mr. James Wigglesworth.

succeeded by pneumonia? Brandy and milk, with gallic acid and tincture of opium, were ordered.

On October 28th, the pulse was 110, and the temperature 98.5 deg.; and on the following day the pulse was 120. There was great pain in the right side; the physical signs were unchanged; the sputa were very copious. There was no material change in the patient's condition till November 1st, when he began to pass blood by the bowels. He died on November 3rd.

Necropsy.—The body was much emaciated; the right lung was adherent in front and strongly so behind; it was pneumonic at the extreme base. The bronchial tubes were filled with sanguineo-purulent matter. There was an aperture at the lower part of the lung communicating with an abscess. The left lung was adherent.—*Liver:* The greater part of the tissue appeared tolerably healthy; behind, the capsule was greatly thickened; between it and the abdominal wall, beside the ribs, there was an abscess communicating with the right lung through an opening in the diaphragm.—*Intestines:* The colon was greatly thickened, especially towards the sigmoid flexure; numerous ulcers were present. No communication existed between the abscess and the bowels.

These two cases very closely resemble each other in their history, their course, and their *post mortem* appearances. I have seen two other cases where the symptoms were very similar to those which I have described, and in which, I believe, an abscess connected with the posterior part of the liver had burst into the lung. One case terminated fatally, but no necropsy was obtained; in the other, the patient recovered; so that in neither instance was it possible to verify the diagnosis which was made.

I was summoned in 1873 to see, in consultation, a gentleman who had had some symptoms supposed to be due to pleurisy. A friction-sound was heard in the lower part of the right chest. He did not, however, improve under the treatment recommended; and at the time I saw him, he had begun to expectorate a good deal. He had been in India, and had been told that he had disease of the liver. He had suffered from pain in the right side for many months, nay, even some years, he said. On examination, I found some dullness with crepitation at the base of the right lung, but no signs of lung-disease elsewhere. There was a good deal of sputum, which resembled that of the two patients whose cases I have detailed. Looking at the history of the patient and the peculiar character of the expectoration, my diagnosis was that he was suffering from hepatic or perihepatic abscess which had opened into the lung. I saw the gentleman two or three times. The expectoration continued of the same character, and the general symptoms remained for some time severe. He ultimately recovered.

Again, I saw in consultation, in the spring of 1875, a lady, living in the north of Lancashire, who had symptoms very similar to those of the last case. She had been ill for four or five months. She had had symptoms of disordered liver. There had been a slight attack of a dysenteric nature. She had never been in a tropical climate. She had suffered from cough; and had, on more than one occasion, brought up a large quantity of sputa. A pleuritic rub had been heard in the right pleura; and there had been dullness over the lower part of the right back. The case had been looked upon as one of lung disease. When I saw the patient, she was pale, sallow, but not emaciated. There was a severe barking cough, with expectoration which was reddish and free from fœtor. It was very similar to that of the other cases I have referred to. The pulse was 92. There was no evidence of disease at the apex of the lung; nor were there any general symptoms of phthisis. The point for consideration was whether the case was one of abscess of the lung, or of abscess connected with the liver which had burst into the lung. My opinion was in favour of the latter view. The patient died about a fortnight after I saw her; but no *post mortem* examination was made.

These four cases presented, during life, symptoms and physical signs of a very similar character. Three of them, when seen in their earlier stages, were considered to be cases of chest disease; nor would it have been possible, perhaps, before the abscesses had burst, to say that the pleuritic rub or the dullness at the base of the lung, was not due to primary disease within the chest.

In cases of this kind, what is the proper treatment to adopt? It is most important that a correct diagnosis should be made, so that you should not be treating as a primary disease of the lungs one which is only secondary. Your object must be to support your patient well, in the hope that the abscess may ultimately close. The bursting of an abscess, connected with the liver, into the lung, and the discharge of the matter through the bronchial tubes, is not the most satisfactory mode by which such an abscess may make its exit, because the lung may become so disorganised during the process that death may result. If an abscess burst into the colon, for example, and the discharge take place through

the bowels, the latter may not become at all disorganised, and the chances of the patient's recovery are greater than if the abscess make its way into the chest.

Can anything be done, in such cases as I have referred to, as regards opening the abscess or drawing off its contents? It is quite clear that, when an abscess forms in the situation of those which we discovered on *post mortem* examination, it cannot be reached. Indeed, you could not accurately diagnose its seat, even if you surmised its existence before it had burst. All, therefore, that you can do is to rely on general measures.

REMARKS

ON

THE MORTALITY OF PLEURISY CONSIDERED IN RELATION TO THE OPERATION OF PARACENTESIS THORACIS.*

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THE treatment of pleural effusions by means of paracentesis has of late become very widely extended, and mainly through two causes: firstly, through the greater sense of security afforded by the use of small trocars, together with the more effectual means used for avoiding the entrance of air into the cavity of the pleura; and, secondly, owing to the vigorous and enthusiastic support which it has received from some of its partisans. It is now taught in many quarters that it is a perfectly safe and innocuous operation; that it ought to be practised in all cases when absorption is delayed beyond two or three or four weeks, or even as soon as any fluid is discovered in the pleural cavity; that no dangers attend it when carefully performed; and, further, that it presents the advantages of shortening the duration of the disease and of promoting fuller expansion of the compressed lung.

These forcible statements have exercised a considerable influence on the profession in general, as well as on myself, though in my own practice I have hesitated to perform the operation in very early stages of the disease, or without distinct indications for its necessity. My personal experience, though limited, may be said to have been so far favourable that, out of sixteen cases which have either been under my care or which I have had opportunities of observing, only four have died; two of these being tubercular, another being a case of pyopneumothorax, and another dying of lardaceous degeneration after long-continued suppuration. A perusal of the cases published by others has, however, led me to believe that the experience of no single observer can be deemed adequate to represent all the aspects of this question. I therefore resolved to review the statistics of the operation as given by those who have largely practised it; and the results of this inquiry, as shown in the accompanying table (No. III) would appear to indicate that, even at the present day and with the most approved methods of operation, thoracentesis cannot be altogether regarded as such a life-saving operation, nor yet, I believe, as so completely innocuous as is asserted by some of its advocates.

I am anxious to state *in limine*, that I by no means hold the opinion that it is an operation to be discouraged when indications exist for its performance. These indications are, grave dyspnoea; threatened failure of cardiac action; prolonged hectic, indicating the presence of pus; signs of septic infection, or other constitutional disturbance endangering life; and lastly, in some cases, absence of, or undue delay in, the natural process of absorption. Unless, however, one or more of these be present, I think that the results of recent experience would call for greater caution than is at present inculcated in its performance by not a few recent writers on this subject.

In the tables which I have constructed, I have endeavoured to contrast the mortality of all pleurisies collectively with that observed in cases of paracentesis. I am aware of the fallacies which attend this plan; for, in the first place, hospital statistics include many cases of mild forms of the disease; and, secondly, in the earlier cases of paracentesis, those may have been selected for publication which showed favourable results (though this is probably unimportant); or,

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