Pleurisy

with Clinical Notes & Remarks.

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Pneumonia with remarks clinical note

Pneumonia is a subject of great moment to the practicing physician. Not only is it a serious disease as regards its actual danger to life, being credited with two per cent of the deaths in England, but by its results on the lungs leads often to permanent ill health, and in many cases sooner or later to death from phthisis.

In common with one or two other inflammatory pleuropneumonia has retained its older name that has not assumed the termination of "itis." This may not be altogether, or indeed at all an advantage as the name—pleurisy—seems to me the more definite one of pleuritis would do. This is to a certain extent shown in Alison's Practice of Medicine where he says: "The two diseases' pleurisy and pneumonia' are so much alike that there is no advantage in separating them and they will therefore be considered together." Although time, pathology, and mycology have distinctly separated these diseases to show us that pneumonia is in all probability a specific disease + not a simple inflammation, that is still considerable laxity in the use of the term pleurisy. How often is an obscure pair of the smoke of which the physician is unable to find the cause shrouded in a "touch of pleurisy."

Etiology. Pneumonia may be secondary to many diseases but it is to pneumonia as a disease per se that these notes are especially directed.
At one time idiopathic pleurisy was always ascribed to cold; and although it is now fashionable to ascribe it to any other cause rather than that one, there are many cases in which the history of exposure to cold is as plain, that it would be folly for an indeed from one cause to ascribe it to another cause (see cases).

A pure pleurisy may certainly be rheumatic; the serous membrane of the pleura being affected in place of that of the joints, just as the peri-cardium may be similarly affected, and an low state of general health may predispose to the affection, but, at all events a very large proportion of cases of true pleurisy are due to cold. It sometimes appears in clusters of cases which would seem to be another argument in favor of the weather being an important factor in its production, and it is certainly more common in the colder seasons of the year.

Pathology

The Pathology of Pleurisy is simple being that presented by all serous membrane when inflamed, and would no doubt could it be observed in process be an excellent example of "Color, Calor, Tunor, Dolor." There is first an increased vasculainity of the vessels, chiefly the peritubal, which may be and give rise to edema, in comparatively early; there is a certain amount of lymph accumulation. Along with this vasculainity there is in, follow...
of the membrane and sub-erosion tissue; and here again the costal membrane suffers least and most severely. The amount of infiltration varies according to the intensity of the attack, and though in itself not a very prominent feature, it sometimes extends to neighboring parts such as the interlobular septa of the lung, the tissues of the mediastinum, diaphragm external thoracic parietes and may even extend to the peritoneum. Following these phenomena comes the formation of a false membrane composed of coagulated fibrin with pus cells entangled in its meshes. It is at first a very thin granular, but more or less coherent, pellicle; to the finger and destitute of polish. This gradually extends in area and increases in thickness and becomes more yellow and hemorrhagic. It varies in thickness from a small film up to half an inch. Owing to the tendency of lymph to form a network, and the rubbing movements caused by respiration it soon assumes an irregular wrinkled or petiole form character; in slighter cases, the separated broad flatter look. When fluid is formed early attacks are apt to be inflammatory lymphatic less between the two layers, the affected portion being of course firmer and more organized than the free portion, and here organization first begins and may go on till it ultimately pervades the whole membrane and obliterates more or less the pleural cavity.
The amount of fluid is very variable sometimes very large. The fluid may be clear, yellowish or greenish with a few flakes of lymph floating in it or it may be turbid with a milky sediment consisting largely of pus. Blood is frequently present being derived either from the rupture of new vessels or from ulcerative processes in the lung.

The clubs of fibrin floating in the serum contain a great number of imperfect red cells and in the fluid itself the cells are normally clean, nucleus or multi-nucleated. The greater their number the greater is the chance of empyema forming. There are also present free nuclei and a great number of blood corpuscles, varying with the vascular state of the membrane.

The less the inflammatory action the greater is the amount of serum, which is then thick like synovial fluid, and contains degenerated cell elements, and there is then less tendency to the formation of adhesion and firm membranes. In scurvy, tuberculosis, carcinomas and other cachexias and even in rare example pleurisy the effusion may be very bloody.

In pleurisy that is due to extension from peritonitis, pericarditis, pneumonia, etc. the discharge of serum is generally scanty and the lymph may not spread beyond the point of invasion. When it does spread often these as in all cases it tends to spread down rather than up. Both solid and fluid products following the laws of gravity.
In the idiopathic form and where it arises during the eruptive fevers or from perforation of the pleura, by abscess effusion is very copious and rapid. The lung, having its air squeezed out and is gradually compressed and may become remarkably reduced in size and even concealed at the root by a layer of lymph continuous with the rest of the membrane, so that the lung may appear to have undergone complete destruction.

Pathological Result.

Usually, the fluid is absorbed the lung recovers itself and the effused lymph is slowly converted into a kind of cicatricial connective tissue which remains permanently. It may be a mere white opacifying, but there are generally adhesions which may be mere filaments or bands of connective tissue of various lengths containing blood and lymph vessels elastic fibres and nerves (Kocher), a tissue as dense close regular as cartilage or tendon, which may in time be the seat of calcarea deposit.

These adhesions may be limited to one or two points or they may vary up to total obliteration of the pleural cavity. Either partial or complete adhesions remain indefinitely after acute pleurisy and apparently give rise to little trouble, for it is rare on first morn examination to find a case where
there is not more or less adhesion of one or other lung. It is probable that they pre-
Airborne to second attacks, and in such
cases the second attack may be limited
in its extent by the old adhesions.
When the lung is long compressed and
rendered entirely airless, especially
if covered by membrane, there is little
or no restoration, and the space is filled
up by the folding in of the surrounding
parts. The mediastinum, heart, liver, or
stomach, the ribs are retracted and
approximated, the shoulders falls and
the spine backs in the same direction,
while the adhesion remains abundant,
thick and adherent. Such a com-
pressed lung is liable to degenerate.
In many cases even after long compression
the lung recovers wonderfully especially
in young persons.

Symptoms
When the attack is a
slight one of dry pleurisy the symptoms
are often obscure and it soon terminates
in adhesion and recovery. Such cases
are often seen in phthisical habits
where the disease acts as a safeguard
preventing perforation and the escape of
malignant matter into the pleural cavity.
There is generally but slight thickening,
though it sometimes causes lasting coughing
pain, such as are common to adhesion and
are generally only felt when the patient takes a very deep breath or undergoes some unaccustomed exertion. This form may be considered as sub-acute pleurisy. The symptoms of acute pleurisy are simple and as Alis son says nearly un-equinical. They are shortly fever, pain, dyspnoea.

The fever ranges from 99.5° to a little over 101° at its commencement, and rarely reaches any alarming height. When a temperature of 104° is touched it is probable that pneumonia has complicated the original disease. Pain though not invariably is usually present and is generally severe. It is increased on inspiration which of course causes the inflamed surface to rub. In some bad cases where pus forms almost at once the pain is very disconcerting and rigor are protracted and severe. It is often said that this pain is not increased on pressure. It may be from fear, but patients certainly shrink from pressure when applied.

The dyspnoea is not like that of pneumonia and is more in relation to the dyspnea that pain. The character of the respiration is the most distinctive mark of pleurisy. It is a peculiar catty respiration with a short inspiratory movement followed immediately by a long grateful expiration. Lastly there is at all events very frequently a deciduous
pinched look of the face. A man who is ill for an acute pulmonary illness always looks ill. In this connection, the words of Dr. Clifford Allbutt may be quoted. He says: "Most commonly it appears as a stitch in the side, about the level of the false ribs, which is intensified by inspiration and cough. The deep breath, when partly drawn in and short, as if with a stab, while the face of the patient is wrung with an expression of sudden distress. Such inspiration is, however, instinctively avoided so that the face may speak rather of apprehension than of actual suffering; in any case the expression is a tell-tale one to the practiced observer. The fixed blue nose, which are dilated, but do not oscillate as in some other kinds of dyspnea, the parted lips, the bright but empty eye of fresh fever, the cheeks flush red, but not congested as in pleurisy pneumonia, the fine occupation and anxious expression, the Jacobi's semicircle, slightly bent forward toward the affected side, the shallow breathing, the fixed chest, the hand on the side, the curt speech, the stifled cough, make up a clinical picture often seen, and easy of recognition. It is a curious thing that these symptoms of distress are generally more marked in a robust patient, or one previously healthy, than in the ailing, weakly or cachectic. Although such a typical case is far from uncommon, still the incidence is by no means
uniform. The symptoms may be very slight, and pass completely off while the patient is quite about; or he may grow slowly and gradually worse and so on with his work until the accumulation of fluid renders the dyspnoea so severe, that he has to apply for advice. Such cases are not rare. On the other hand the onset may be sudden, with a sign or an epileptic seizure, followed by high fever and the characteristic tic douloureux: in latent symptoms may suddenly assume great intensity.

As before stated, the temperature rarely rises above 102° unless there is some concomitant disease. It often runs about 100° and sometimes does not rise at all.

The pulse is not greatly increased in rate and is usually soft. (Ballast states that at the commencement of the disease the arterial tension is very high, and the pulse small and hard.) The skin is hot and dry, the tongue furred, the appetite impaired, thirst increased, and the urine scanty and high colored, often containing a little albumin. The bowels are confined. Headache is often present. The cough is dry or with a little frothy expectoration. It is often absent and rarely severe but in a few cases it becomes harsh, yodeling and troublesome. It is always painful. As effusion increases the pain diminishes, and often altogether disappears. The fever may diminish and the general condition improve.
Dyspnoea may or may not increase and it is an important fact that great effusion may be present and be attended by little or no obvious dyspnoea except on exertion. In the whole however dyspnoea increases with the amount of fluid, and the patient may get pale, breathless & cyanosed with progressing asphyxia.

In favourable cases there is generally some improvement on the third or fourth day and in such cases the disease runs its course in about a week, and convalescence is established along with full action of the lungs and other organs.

In the majority of cases there is more pain than danger during the first week, death at this period being rare, though as it does occasionally occur this statement should be guardedly made.Relapses in the shape of increase of fluid may set in without increase of temperature but there is generally a weaker and more rapid pulse and diminished flow of urine. When a new flood of fluid takes place the patient who has been lying in his sound side to avoid pain, turns on the affected side as soon as there is more breathing space. As a rule the fluid remains at its height for three or four days and is gone in three or four weeks. In rare cases it may continue with remittent fever for months.

When the dis ease is bilateral there is generally peri cardiac as well as death in
almost certain

In certain cases the disease does not run the typical course which is mostly described. Instead of fluid being effused the organism action of lymph seen to proceed rapidly. The friction is very coarse, the pain intense, the fever high and little or no fluid can be withdrawn by the aspiration or hypodermic syringe. Dense flakes of lymph seem to be formed which line a large part of the chest. The importance of these cases was first pointed out to the writer by Dr. McCordall of Carlisle, and he has recently verified the observations of Dr. McCordall as to their danger. Such cases are certainly more serious than the usual ones. They appear the much more exhausting to the patient's health, and two cases illustrative of this form of the disease are included in those five at the end of this paper.

A special note must be made of the subject of abdominal gastric pain as the symptoms are peculiar. The patient appears clean and well, but is in intense airness and anxiety. In fact one of her remarks that he is as

on having a cold in his chest or a perforation (It occurred to the writer on one occasion to diagnose this complaint in a patient a young man of thirty. He had been exposed to cold the day before & this was severe and

only with a pain in the right hypochondrium. He was seen in about three hours
From the onset of the disease he was thrown into a fit of constipation and vomiting. His breathing was labored and painful. There was no change in his pulse nor was there any indication of collapse. The abdomen was distended and tender. The next morning he was collapsed and evidently suffering from peritonitis. At that time it was thought that a perforation of the intestine had occurred, but this was later disproved. The abdomen was tense and tender. The diagnosis was peritonitis. It is a very dangerous form of peritonitis. Abdominal breathing is lessened; thoracic breathing greatly increased. There is diminution of the respiratory sound on the side of the affected side. The case is on the effusion of fluid and dullness gradually appears.

Physical Signs.

The physical signs of peritonitis are comparatively simple, but all are simple to describe. They may be put in two words—friction and dullness. If the observer can satisfy himself of these in their respective order, he needs little more. But in many cases the first is not to be heard and the second may be difficult to appreciate or differentiate. The tympan may be as soft and the friction as gentle that the sound is inaudible. The effusion may have separated the surfaces and there be no sign of friction to be heard. It is curious however
that friction may be heard very distinctly even though fluid lies beneath the stethoscope. In a case of typical pleurisy with effusion the peculiarly flat note, the entire absence of vocal fremitus, and vesicular murmur, and the distinct a abolided voice sounds are quite pathognomonic but in such cases one is in no difficulty. Probably the most certain and definite sign of fluid in the chest is the absence of vocal fremitus. This is invariably absent and its absence is easily explainable. It is otherwise however with many of the remaining signs. In instance one is often startled into the distinct clean voice sound which is heard over the spot where the note on percussion is absolutely flat and fluid undoubtedly present. In such cases it is probable that there is a certain amount of accompanying pneumonia or to speak more strictly a local superficial pulmonary.

Some authorities mention the alteration in the level of dulness as a common sign and proof of the presence of fluid. If it can be made out it would certainly be proof of the presence of fluid but in the writers experience limited experience it cannot be demonstrated.

Nietzche of Vienna in his lectures refers to this alteration in level as a certain sign of the existence of air in the pleural cavity.
along with the fluid.

Agglomeration, that so-called specific sign of pleurisy, is far from invariably present, and the explanation of this sound seems to be far from satisfac-tory. Was it due to the transmission of the sound through fluid it shares the same invariably present than it is, and it is certainly most marked when there is con-solidation or a complicating pneumonia (in plants, etc.) and in the writer's mid-studies, especially indicative of that com-plication.

a bruit de fist filled
Binune mentions high pitched resonance
the un-compressed portion of lung but
it is difficult to understand why an un-compressed portion of lung should give
any abnormal sound. Where there is a
large amount of fluid in the chest and
the lung is floated up to the fist and com-presed then there is frequently such a sound
but it can hardly be expected in the early
stage where friction is present.

All things considered the absence of Vocal
Premises is the most dependable sign
as it indicates the presence of fluid and
this is especially so in the case of children
where the breath sounds are often heard
very distinctly through fluid.

In these cases where dense flakes of lymph
are formed instead of fluid the physical
signs are often most puzzling. There is great
constitutive chillness over parts of the chest.
but there are in fevers that cases where
the percussion note is almost normal.
Respiratory brethiop can be
detected, not being abolished as it is by
fluid, but merely rendered fronter. But
the clear spaces the brethiop may
be hand vesicular or aphthouship
bronchial and these signs vary in
the most complicated manner from
day to day.

Convalescence may begin at any
stage. Brethiop is abolished whatever
the treatment one may look for some
improvement on the third or fourth day.
In many cases it begins before there is
any obvious effusion, and in others after
the fluid has accumulated, and there
is more or less of the lump ensiess.
Very often convalescence begins while the level
of the fluid remains stantary.
Convalescence is indicated by subsidence of
the fever and more especially by a general
improvement in the condition of the bodily
function. The brethiop becomes more
natural, the appetite returns, and better
sleep is obtained. The fluid is absorbed, the
pleural surfaces come in to contact, tissue
and friction may return; the breath being
usually more audible than at the commen-
sement. Sometimes when the fluid dis-
appears the lungs enlarge and healthy
respiratory sounds are soon restored.
but even in favourable cases it is usually a long time, often months, before the friction completely disappears, and even longer before the percussion note and the respiratory murmur become normal at the base.

A certain amount of pain is often felt for a long time or even for a short time. Sometimes, the lung is only partially restored to its normal state. In such cases, the healing process may be prolonged, and in some cases, complete recovery may not be achieved for a long time. The common cause of death is usually pneumonia, which may occur from a variety of causes, including asthma, respiratory infections, and other respiratory diseases. Pneumonia may occur as a complication of other diseases, and in such cases, the prognosis is usually determined by the underlying condition. In a case reported by Keynes, death resulted from a dense fibrous clot forming in the right pulmonary artery, the pleurisy being on the right side.

Pneumonia may occur as a complication of other diseases, and in such cases, the prognosis is usually determined by the underlying condition.
They greatly retard

Gum. Pleurisy as a manifestation of complications of gum is very rare though it has been described. 

Influenza. Pleurisy - Pneumonia or Pleurisy are often present in this disease amounting about ten per cent of the cases; but the proportion varies much in different epidemics. It is most common during convalescence.

Pyaemia. Pleurisy may occur as a local manifestation of this disease in very few cases.

Pneumonia. In this disease pneumonic is very common and serious by it influences the mortality. It is due to the weakness of the chest wall in this cachexia. Pleurisy is a serious disease for the subject of it to contract.

Rheumatism. Pleurisy of a true rheumatic character may occur, the phenomena being the same as in ordinary pleurisy. It is best treated by gentle stimuli locally and anti-rheumatic treatment internally.

Scarlet fever. Pleurisy is more likely to occur when there is albuminuria than when the rheumatic state is left by this fever. The lobes may be affected and the lymphatic rapidly breaks up into pus. Death usually results in a few days but sometimes a chronic empyema is formed.

Cases intermediate between pleurisy and true rheumatic by the third may occur; these cases being most common during the rheumatic period of the disease or the second week.

Small pox. In the confluent form patients after escaping from the severity of the eruption are apt to suffer severely from secondary
Pleurisy is usually accompanied by pleurisy, possibly of a pyaemic nature. Pleurisy also frequently occurs as a sequel to the secondary fever. The patient is attacked very suddenly and hardly ever recovers. The disease runs a very rapid course and terminates fatally in three or four days, often sooner. The symptoms are very decided, such cases are all but hopeless. Bleeding and opium may be tried. Bleeding undoubtedly does harm. Usually one side is affected and the fluid is sero-purulent.

*Syphoid Fever:* Pleurisy is almost as common a complication as pneumonia in this disease and is probably as fatal. From this it observed adhesions in pleura on post-mortem examination in six out of nineteen cases and Stemmen in two out of fifteen.

*Syphilis:* Pleurisy is a not uncommon cause of death in children who suffer from hereditory syphilis.

**Treatment**

The best method of healing pleurisy is the subject of much difference of opinion. The old method of phlebotomy and mercurials to salivation is more abandoned, but heat, cold, cupping, balsams, this, that, and everything else have their advocates, while some appear to think that cases are best left to nature. The physician, however, whose name does not seem to the writer, remarks, that in no disease is prompt and early treatment so important as in pleurisy.
In the milder or subacute cases a mild counterirritant such as a mustard poultice is generally enough to relieve the pain and the disease cures itself, but unfortunately we cannot always tell when a case is going to a mild or severe state. Setting aside morphia for the present, moist heat, preferably with some counterirritant such as a mustard poultice or a turpentine bag, gives wonderful relief in the majority of cases. Cold cannot be applied in general practice as the most careful supervision is required. The usual treatment of giving a high dermic of morphia, then encircling the side in poultices, is of great value but probably the treatment of chapping as recommended by Dr. Roberts is the one which gives rest to the inflamed part in the most rational way. Hot fomentations applied before the chapping is put on are useful by drawing the excess of blood from the part, as it must be remembered that the extant membrane is the part severely affected, therefore the chapping must be applied on sides very firmly; first in the direction of the ribs, then at right angles to the first set of chaps, each chaps being firmly stretched and pressed down, so as to render the affected part as firm as possible motionless. The pain is not relieved to the extent that it is by poulticing, but the subsequent progress of the case is generally more favorable. The pain can be kept at bay by repeated hypodermics of morphia. A gentle antispetic such as Acetate of Ammonia should be
given while the fever is present. In a case in
which early and tightly strapped effusion is
not nearly as likely to occur and the case
usually proceeds rapidly to recovery.
A small blister is also an effective remedy.
Two or three cases have occurred to the writer,
where through a misunderstanding a large
part of the affected side has been punctured
with blistering fluid, and cases which seemed
likely to run the regular course of two or three
weeks have been cut short in two or three
days at the expense of a night of agony and
a large raw surface on the chest. Bleeding
and blistering though not much employed
have a wonderful effect in soothing the pain.
When effusion has occurred, various methods are
employed to get rid of it. Counter irritation in
the form of iodine or blisters are largely employed
and often with success. S. R. S. Edna, writing in the
days before the aspirin era, explained that
reabsorption was prevented by the obliteration
of the capillary vessels of the sub-pleural tissue
and advised the injection of iodine to set up inflam-
atory action and the formation of new vessels.
In cases where reaccumulation repeatedly
takes place this plan, as adopted in the treat-
ment of pyogenic abscess, might still be worth a trial.
S. R. S. Edna described puncture by cautery in extreme
cases and found some benefit from the applica-
tion of mercurial iodine ointments.
Many drugs have been recommended, most of which
act by promoting the excretion of excess
of fluid through one or other of the natural
channels was diminishte fluidity of the blood which is restored by taking up the excess of fluid from the chest. Purgatives such as jalap, cathartics, terebinth salts which have very fluid results not doubt help to get rid of the fluid but their mode of action is a not very speable one.

Diuretics such as Acetate of Ammonia, Squill, hibiscus Ehret, freshly prepared infusion of Sipatalis have a beneficial effect in promoting the absorption of fluid by causing its excretion.

Of diaphoretics the most important and useful is juis carmin. Although a very sharp edged tool consequently dangerous in inexperienced hands, though it sometimes fails altogether in producing diaphoresis, juis carmin in many cases act like a charm; one full dose - a third of a grain carefully administered & its effects favored often suffices for a cure. the prescription which was absolutely flat at night, being not far from normal in the morning after the sweat.

Byronia which has a reputation among some has in the writers experience proved absolutely valueless. It is in otherwise however with lack of Potassium the only drug which has any claim to the title of specific. It is of undoubted value not only in aiding the absorption of the fluid but also of the thickened membrane which is also present. Many define cure and depreciate its use but any one who has given it a fair trial in large doses and with an unbiased mind cannot fail to convince himself of its value. General tonics such as Eumine which act by improving the tone of the system are also of undoubted value.
The dry diet treatment as observed by the writer in Prof. Wiedenhofer’s wards in Vienna if thoroughly carried out is simple cruelty and if not thoroughly adhered to is useless. The best mentioned is, but by far the most useful remedy for the effusion is the aspirator. When the fluid is causing any inconvenience by its presence and amount it is merely wasting time to effect in days by drugs what can be done safely and satisfactorily in seconds by the aspirator. The use of this instrument is extending widely there is nothing to fear from its use unless from the most culpable carelessness, and no patient who is suffering dyspnœa on account of the fluid should be denied its use. After its use the patient should be put on iodide potassium applied externally to prevent its accumulation. Planning must be well watched afterwards. In many cases it is the starting point of a slow fibrosis which goes on to phthisis especially if there be any predisposition to that disease. Attempts should be made by repeated counter-irritation to get rid as far as possible of adhesions and the rubbing in of Nébias liniment once or twice daily renders considerable service. Pleural gymnastics was to make unabsorbable adhesions as long as possible may be tried as the constant dragging on the lung of a short adhesion must in time by its irritation set up fibrosis. A thorough change of air, preferably a sea voyage is an important accessory to the thorough treatment of Planning.
In conclusion, notes of a few cases are submitted to illustrate some of the points mentioned in the preceding notes.

Case 1. J.M. G. aged 27. a delicately built man. Had got very one night walking from his work (two miles). Next day on getting home at 5:2. M. he had a violent stitch in his right side. Temperature 101. Pulse 100. Joint friction was the head. A hydropemic of the heart was very symptomatic. Ammonia given twice internally. Some effusion next day which had gradually increased. On account of great weakness was not satisfied to sleep the case did not progress well till Baccyals came him with me on the fourth day. He was administered more freely and the disappearance of the fluid was on improvement. I sacrificed on the 6th day taking about 2 parts of the slightly bloody serum. He was then put in to ride of Baccyals & lately he applied externally though some fluid was again pressed out it was soon absorbed and repeated blistering caused a good recovery. Some pain was felt for quite four months after the lump did not expand very freely but the free application of isotip seems to have done this night. He has put on weight and a friend of his remarked to me that he looked better now than he had done for years.

Case 2. Sarah B. aged 17. no distinct history but the case occurred in November. It began in the usual way with a stitch effusion quickly occurred. A repentent spirit was applied & cotton wool all over the chest and a chik heretic guare. She sweated freely in a few days the effusion began to decline, she made an excellent recovery. The chest was painless with isotip for some time
Case 3. Mr. P. aged 42. Has a long history of rheumatism and gout. The attack occurred in February. When seen the first stage was over, but pain had occurred. The temperature was 102. There was some dyspnea. Poultices were applied and Aqueous Acetic acid given. Next day the patient was much worse. The fever high. 103.5. The dyspnea grew, as the fluid filled almost the whole of the left side of the chest. Harris tube was aspirated into me. I at once used it and drew off a large amount of serum, which was just beginning to form purulent. The chest was then painted with iodine. A plug of the bottle of iron juice internally and the patient never looked back.

Case 4. Mr. B. aged 77. Brother of Case 3. Had put his feet up, a rating two days before. felt as if something had said he felt ill. Sept. 102. There were no physical signs detectable. Next day there was friction, palpability on the right side over a large area, but no appreciable dullness. Poultices were applied. Iodide juice internally. For about a fortnight the case remained stationary. No fluid could be detected on withdrawn by the needle. Iodide of iron was the juice. Cauterization being kept up the practically slowly improved portion of dullness remaining on the back. He went down stairs 4 occasionally and had not improved much. He was sent to the asylum for a change. When he came back although rather better, he was still far from strong even. Years more than a year from the commence men he looks very thin and delicate, likely enough. He has Phthisis. I have recommended a sea voyage at
is in contemplation. This was one of the cases of lymphatic pleurisy.

Case 5. John H. 25. History of wetting when at work on his farm. Good deal of pain in left side. Temperature 102°. There was some friction but very little effusion. He was treated with poultices & digitalis, although there was no evidence of pneumonia. He convalesced with a crisis on the fifth day, made a complete recovery.

Case 6. Robert J. 35. A very delicate patient with a double aortic & mitral murmur. Followed several attacks of rheumatic fever. He also had chronic inflammatory British disease. Got cold from a long drive on a blustery autumn day. Was seized with a slight pain in the right side. Inflammatory strips were applied the first day, next day attended. This evening he began to breathe rapidly & the temperature was 102.4°. Effusion began & continued rapidly the next evening his temperature was 106.5°. Along with undoubted sign of pneumonia. Inflammatory strips & cotton wool jacket were applied. He was feebly stimulated with amnion 5 parts & strychnia. Next day the temperature was 103° with very careful nursing he prospered fairly well. On the 5th day there was an attempt at crisis, the temperature falling 39.4° but it rose again at night. Kept up till the 7th day, when it fell to normal. It rose again to 103° at night & next day. Dr. MacCloy all who had seen him with me before advised me again to cut him. After considerable discussion between Dr. MacCloy & Dr. Clarke himself we decided that the fluid must be becoming pernicious & went to cut him. No result. But
th after tapping the fluid with a hypodermic needle. Though in a weak condition we were hardly able to do this as thoroughly as I wished, but we with drew about a pint and a half of this purulent fluid. Isodyne was the applied, the iodide of sodium given internally. The temperature remained hectic for a short while but the patient gradually improved and after he had been diligently washed twice daily with a mixture of all 16 cases of the change of fluid his appearance. The patient then had a severe attack of sciatica for which he ultimately recovered. After some months of fair health another set in which was largely relieved some swelling remained in the ankles but he died suddenly in bed one night when away from home apparently from heart disease.

Case 7. Thomas R. aged 40. This case illustrates the slight symptoms of pleurisy, and the safety of aspiration. Patient called on me at my house complaining of a stitch in the side. It seemed likely to be the beginning of a pleurisy so he was told to lie in the place. He later told me it did not get better. I saw no more of him for a fortnight when I met him outside and asked him how he was. He reported the pain all gone but he said he was very short of breath. On examination there was found a large amount of fluid in the left chest. As he was only a single person I recommended him to go to an inn where he would be nursed as he planned that the heart never would necessitate his medical needs. The next day I aspirated and removed a large quantity.
of clear serum. The grip this woman took the next day I found it empty was told that he was out in the stable yard helping to clean harness. He said he felt quite well that all his back aches was gone the was none the worse of his lancet bite.

Case 8. Christopher M. aged 68. Had a distinct history of cold feet at a horse race. He faint had a slight attack of lumbago but three days after the operation he had intense pain in the side with severe fricctions and a temperature of 101°. The side was lightly shaped accordig to St. Robert's plan though the pain persisted pretty severe all races of pleading were gone in a week these being merely a suspicion of fricth. His recovery was retarded by the occurrence of phlebitis in one of the veins of his left leg but he ultimately recovered resumed his work.

Case 9. John S. aged 9. Had measles two months before cotton medi in which had nothing without any medical treatment. He left me through the evening two days before saw him the far had come over to dis charge the day before. On the evening when saw him he had had a "fit" two as an erosion when seen. The pupils were widely dilated insensible slight this was evident that there was meningitis. The far was carefully syranged & hot moist urine applied to it & a purgative dose of mercury given. His temperature was 103° the morning he was conscious seemed better since 104°. Had occasion al lapses of unconsciousness. There was some fricth in the right side the complained of pain in the head & side. As it was evident that the symptom was due to pyaemica
ten minutes of X Zeni Ducati was given every hour. A
a poultice applied to the side. In the evening he was as
much the same but had been rising. Temp. 105.5
next morning although he had slept some the side
was now Temp. 104. The symptoms of pneumonia
were present in addition the respiration being 60.
In the evening the temp was 106.3 the breathing
very rapid. The pain in the side was very
in pain & a hypodermic of morphine was repeated
as he seemed likely to die from suffocative dyspnea.
about eight ounces of blood were drawn from the
arm with marked benefit as the breathing improved. The went to sleep. His course of antibiotics
was ordered every hour & a half. Next morning he
was decidedly better but complained of slight pain
in the stomach that clothes were applied to this.
The temperature was 103 did not rise as fell during the
temperatures to be 101.9. While the breathing was quite easy.
In the evening however the pain in the stomach returned & the abdomen began to swell. The peritoneum
was evidently ascites. Even this weak
condition the operating theatre was entered,
thorium his sufferings were another with opium
and he died next day. No post mortem was
obtained. The case was undoubtedly one of
pyaemia set up by the eti. The most marked
fact in connection with the pneumonia which occurred
was the wonderful relief obtained from breathing.
As he hardly had any severe pain or dyspnea
in connection with that affection afterward.
Case 10. Robert J. aged 30. Had been in poor
health for some time his stomach being very
limp alike had a severe enteritis attack
Three weeks before the present ailmment.
I was pain in the right side & cause friction
Temperature 103-4. The friction was very extensive
in the skin over the whole of this right part of the chest.
Temperature 104. Antiphysin & Aesculin in
in the evening the pain was easy to relief on movement.
Temp 102-2. 10 p.m. Chin al. Next day fell back &
had no relief. Temp 104-4. 10 p.m. Antiphysin. Physical
examination was very much the same but the note is
rather unhealthy. Fuchin very coarse. Chance
bleeding was applied. In the evening to had sweat
profusely & felt easy. Temp 104-2. Boy, the pain
has left his chest. Next morning an uneasy night
was reported. Temp 106-4. Pulse 104. Respirations 32
in the evening there was no appreciable change
at the base but the friction was very loud & coarse.
Next morning he was better. Temp 103-4. Later in
the afternoon I was suddenly rent for as he had been.
Frightened after a draught of rich milk against
which he had been warned. The sickness
was arrested by opium. The pain led his chest
seemed to fail. He had loss of strength & power
in the right & the pulse was very weak. The
Temperature was only 103-5. In the morning but
the pulse was 128. Chin al. & Balsamum were
freely given but he continued & kept weak. The
Temperature rose up in spite of Antiphysin in
repeated times to 105-9 half an hour before his
death. The afternoon. This seemed the case
of a called malignant pleurisy. Although he
had not much pain the man was all along
very severely ill & seemed to feel the pressure of
death all along. There was fluid & any effusion
As withdrawal the lymph did not begin to break up into pus so that no operative treatment was practicable and I do not see that any other treatment could have proved of much use. Stimulants were freely used but seemed to have little beneficial effect. I was unable to have an examination.

The books that have been referred to in these notes are Driscoll's Pathology and Practice of Medicine, Binlow's Practice of Medicine, Reynolds' System of Medicine, Instance Smith's Disease in Children, the Lysander Society's Year Book of Practice, Clifford Allbutt's article on Pleurisy in Children. There are references to short notes from the Medical Journal, Lancet, Medical Press, Bshaw's Retrospect &c.