An Essay on Pneumonia

by

John Fowler Cookson
I shall in the following essay treat principally of Pneumonia, but I shall also make such observations on Pleurisy as appear necessary to elucidate the former subject. By Pneumonia is understood inflammation of the substance of the lungs, accompanied by exudation of some kind, (liquid or solid, serous or purulent,) into the air-cells of those organs, generally by exudation into the pleural cavity.

Symptoms and Diagnosis.

An attack of uncomplicated acute Pneumonia occurring in a healthy subject, is usually heralded by certain premonitory symptoms more or less vague and obscure. These may be said to consist in general languor and malaise, indisposition for exertion, and excitement and disturbance of the respiratory system; the last-mentioned symptom being indicated by a feeling of oppression at the chest, shortness of breath, especially on making any exertion, and, not unfrequently, slight cough. These premonitory symptoms may continue from 24 to 48 hours. The premonitory symptoms having escaped notice or remaining unchecked, there occurs in by far the greater number of cases a marked
vigor, followed by considerable heat of skin, pain in the chest, a frequent short cough, which is voluntarily suppressed, difficult and accelerated, but not noisy, respiration. The pain is rather violent usually, it is situated more or less in the lateral region of the thorax, striking from the root of the scapula towards the nipple. The patient is now in what has usually been called the first stage of the disease. It is proper however to observe that Dr. Stokes makes this the second, and not the first stage, inasmuch as his first stage corresponds to the presymptomatic symptoms before mentioned. He calls this his first stage, a stage of intense capillary injection without effusion into the air cells. He says that the pulmonary tissue under these circumstances is drier than usual and of a bright vermilion colour. This condition of the lungs he says he has found in their upper portions, in cases where, death having occurred from other causes, the middle and lower portions were either partially or entirely blocked up by exudation.

Can this first stage of Stokes be diagnosed? He thinks it may be inferred from the presymptomatic symptoms above mentioned occurring along with a local preternity of
respiration. Be this as it may, it is certain that it very seldom is diagnosed in practice, patients not applying for medical advice until the disease has advanced beyond this stage.

Returning to that period of the disease which laennec calls the first stage, we notice that the sputum, which, during the early period, had been scanty, gradually increased in quantity. It assumes the peculiar rusty appearance which when well marked is almost certain diagnostic of pneumonia. It is easily distinguished from the sputum of bronchitis by the sputum in the latter disease being only streaked with blood; the blood is not so intimately mixed with the mucus as in pneumonia. The sputum in pneumonia also is remarkably tenacious, permitting the vessel in which it is contained to be inverted without its falling out.

The physical signs present in this stage are 1st: dullness on percussion. (This is often omitted by writers as one of the physical signs of this stage, being only referred to as one of the signs found in the next stage when the lung is solidified; but this is an error, there must be more or less dulness on percussion in this stage, as the lung is at least partially
filled up with solid substance). 2nd 2nd 2nd Diminution of the amount of the natural vesicular murmur.

3. Crepitation.

If there be any opportunity of examining a lung in this particular stage, it will be found to be of a dark red colour, heavier than natural, less elastic, less crepitant under pressure than sound lung. It is also more friable than natural. It has been supposed to resemble more or less the structure of the spleen, whence the term spleenization has been given to this stage.

If the inflammation continues (I am intending now to describe a case of atheptic uncomplicated pneumonia) the dyspnoea increases, the respiration becomes accelerated, (the respirations may amount to 40, 50, or even 60 per minute) the patient makes a panting inspiration between every two or three words when he attempts to speak, the pulse acquires its maximum of quickness, hardness, and fulness, and the symptom of its rustiness and viscosity. The countenance at this period becomes very haggard, and the cheeks flushed, and the eyes sunken. The expression of the countenance at this stage may be called a pneumonic expression, as the peculiarity given to it by the involvement of
The respiratory organs, and the consequent urgent dyspnoea, added to the general expression of a patient in a febrile state, makes it, in a typical case, remarkably characteristic of the disease. Different statements are made by writers as to the decubitus in pneumonia. The fact is however it is not a very important diagnostic sign as it varies very greatly. The patient cannot lie easily on the affected side as that increases the pain by pressure on the ribs and intercostal spaces; nor can he lie long at a time on the sound side as that increases the dyspnoea; he therefore changes about from one side to the other according to the comparative severity of the dyspnoea and the pain; he also lies a good deal on his back. I have observed too that when only one lung is affected he often supports himself for long periods together on the elbow of the sound side; this avoids pressure on the affected side, it enables the sound lung to play more freely.

The respiration ceases in this stage it is replaced by tubular breathing and crepitation broncho-pleurisy.

If a lung in this state be examined it is found
red in colour but no longer crepitant. It sinks in water, and is denser and more solid than natural; it is also more easily broken down, hence this stage has been called by Andral, 'ramollissement rouge.' It is however usually spoken of as the stage of hepatisation, from the lung resembling more or less the structure of the liver.

In a still more advanced period of the disease the condition of things is what was denominated by Lecunee, 'grey hepatisation.' Andral calls it 'ramollissement gris.' It is simply the conversion of the effused lymph of the previous stage into pus which infiltrates the lung.

Auscultation and percussion are not of much use in enabling us to say whether the disease has passed into this stage; its existence must be judged of from other causes. We may infer that the effused lymph has become converted into pus, if the expectoration be plentiful, or have the prime-juice appearance, if the countenance become pale and sunken, if the fever take on an adynamic character, if the tongue be coated red and glazed, and if the disease have existed beyond a certain length of time. The pulse in this stage is small, quick and
weak, and there is not unfrequently delirium—the latter is a very fatal symptom.

The duration of pneumonia may be stated, on an average, as being about ten days. This statement however is to be taken with some allowance, as the duration of the disease is liable to vary especially in unhealthy subjects. For the same reason apparently, Andral's statement that the disease terminates on certain critical days, has scarcely been backed up by other physicians. In 93 cases Andral observed that the recoveries on critical and non-critical days were as 14 to 3. The days said to be critical are the $5^{\frac{1}{2}}$, $7^{\frac{1}{2}}$, $9^{\frac{1}{2}}$, $11^{\frac{1}{2}}$ and $14^{\frac{1}{2}}$. It appears pretty certain that a favourable result very seldom takes place so late as the $21^{\text{st}}$ day.

A favourable turn in the disease will of course be indicated by the dulness on percussion and bronchial respiration diminishing, and being replaced by gradually increasing resonance and by the returning crepitation. The râle crepitant de retour will be mixed up with friction râles, if there has been any effusion of lymph into the pleural sac as there generally is. The investing membrane seldom failing to be
more or less involved in the disease.

As to the usual seat of Pneumonia the disease is its simple variety, and in a healthy subject, usually commences at the base of the right lung, and in such a case is usually confined to that locality; at all events although it may spread upwards a little towards the superior lobes it very seldom attaches the other lungs. But in the asthenic, typhoid, or cachectic form of the disease, which is liable to attack persons of the intemperate habit, or of debilitated systems from exposure to bad physical conditions, the pneumonia is generally double.

The statistics as to the seat of the disease may be stated as follows:

Grisolle observed 280 cases of which:

- The right lung was affected in 166
- Left in 97
- Both in 17

The combined results of other observers give the following:

Total 1430 cases:

- Right lung affected in 742
- Left do. in 426
- Both do. in 262
The above two statements are of all cases taken together.

With regard to the disease as observed in children, Billiat and Barthez give the following results:

Of 84 cases

right lung was affected in 48

left

both

27

As to the seat of the disease when it is confined to one lung Grisolle noted, 264 cases

The inferior lobe being affected in 133

Superior

101

middle

30

And in children alone, in 75 cases, 48 were of the base, 27 of the summit.

It may now be proper to glance at a few of the Complications of Pneumonia, especially its complication with Pleurisy.

Simple Pneumonia is an exceedingly rare disease in the perfectly healthy subject, and as the disease with some complication is more common in its acutem than in its atonic form, it is much more common to have Pneumonia with some complication.
I never to have it without any complication. What I have observed both of pneumonia and pleurisy seems to me to warrant the conclusion not only that pneumonia is much more a disease of town-life than pleurisy of country-life, (of which there is no doubt as I shall presently shew,) but also that pneumonia is more a disease of town-life than pleurisy, and pleurisy more a disease of country-life than pneumonia. I feel some diffidence in stating the latter fact, if it be a fact, very positively, but from what I have seen of the two diseases in towns and in agricultural districts, I strongly suspect it is true. I myself had a severe attack of pleurisy, (with no pneumonia whatever, or next to none,) some years ago, being then living, and having usually lived, in an agricultural district. I was bled during this attack with the greatest relief. I have a strong general impression moreover, that in agricultural districts pleurisy is comparatively a frequent, and pneumonia comparatively an infrequent, disease. Again I have a strong impression that in large towns pneumonia is a frequent, pleurisy a rare, disease.
That pneumonia is more frequent in towns than in country places is a fact within the experience of every physician. Nobody denies it. But the statement which I have made that pleurisy, without pneumonia, is more common in the country than in towns, I do not find from my reading to be insisted upon, or even mentioned. I am disposed to attribute this, in the first place, to uncomplicated pleurisy being upon the whole a less dangerous disease than pneumonia, and cases of it being therefore less carefully noted. In the second place to the fact that town practitioners (who not only possess more skill and experience than country practitioners, but are also more laborious in recording their experience,) are, if my idea be correct, the very persons who see the least of pleurisy. Be this as it may, it is certain that pneumonia is both very much more frequent and very much more fatal in the large towns of England than in the country districts. From the tables of Mr. Farr founded on the Registrar-General's returns, it appears that the deaths from pneumonia in both sexes, registered in London during the
years 1838 and 1839 were 74,311, while the deaths from the same disease, in about the same amount of population in the counties of Cornwall, Devonshire, Dorsetshire, Somersetshire, and Wiltshire, during the same two years, were only 3,446, less than one half the number of deaths in London.

It is certain that only for the larger number of cases of pneumonia there is some pleurisy; we should perhaps be almost justified in saying in all, at all events where the pneumonia is at all severe. But pleurisy may, and I believe often does, exist without pneumonia, or with so little of it, that practically the latter disease may be put out of consideration in the treatment of the case. I may here give an analysis of a few cases of acute disease of the lung (fatal), and of a few cases of recent lymph and fluid in the pleura, also fatal, both extracted from the Pathological Register of the Royal Infirmary of Edinburgh.

Of 41 cases of acute disease of
The lung;
Their were associated with recent pleurisy 21
Associated with results of older do. 12
Not associated with pleurisy 8
Of the 8 cases not associated with pleurisy,
6 were cases of incipient broncho-pneumonia,
1 was a case of incipient abscesses, and 1
was doubtful.
Of 27 cases of recent lymph and fluid
in the pleura;
There were associated with acute disease
of the lung, 21
With chronic, do. 15
Doubtful 1
Few were not associated with disease
of the lung; of these 1 was associated with
acute peritonitis, 5 with general dropsy,
and 2, were unexplained.
Bronchitis is an almost constant accom-
paniment of pneumonia, the disease in the
majority of cases spreading from the
bronchi to the parenchyma. The peri-
pneumonic or froth of the old writers was
a broncho-pneumonia, occurring in old
and debilitated persons.
Intercurrent pneumonia is not uncommon
during the course of phthisis.
Cachectic pneumonia often attacks patients who have been the subjects of Bright's disease, also those who are suffering from typhoid fever. The disease is also common in another form of derangement of the urinary secretion viz. Diabetes mellitus.

Typhoid pneumonia is seen more frequently in hospital than in private practice, showing that it is connected with a low state of the system. Dr. Stokes says that in certain cases of typhoid pneumonia, exceedingly sudden hepatisation is met with, without any precipitating cause being observed, so that "a lobe which to-day was perfectly permeable, and presenting no morbid signs, shall in twenty-four hours be solidified, and present dulness with absence of vesicular murmur, bronchophony, and bronchial respiration." Stokes and Andral are both of opinion that this sudden (quasi) hepatisation is the result, not of effusion of lymph, but merely of excessive congestion of blood. This however appears to be merely an hypothesis, brought in to explain the sudden appearance of the signs of solidification. It is not at all proved that this explanation is correct, and, on the face of it, it appears improbable. With great deference to such high authorities as
does not appear that we are warranted in ascribing the signs of condensation in these cases of sudden appearance, to a cause different from that to which we ascribe them, in cases where they are least suddenly developed; fresh facts may however throw more light on this point.

The chlorides are said, and apparently correctly, to disappear from the urine in pneumonia. They are however absent in a considerable number of other inflammatory diseases. The test is acidulation of the fluid with nitric or acetic acid, and the addition of a few drops of solution of nitrate of silver, when if there be any chlorides present, a cloudy white precipitate is produced. Redtenbacher appears to have been the first to call special attention to the absence of the chlorides in pneumonia, as a diagnostic symptom. He gives 80 cases in which he says the quantity of chlorides gradually diminished up to the period of desaturation, when no traces of them could be discovered; but they reappeared as the disease resolved. From the spectrum having a saltish taste during this period, while the chlorides are absent,
The have been supposed to be discharged through the system, but I am not aware that this has been established as a fact.

**Mode of termination and sequela.**

*When Pneumonia does not terminate in a restoration to health it terminates in:*

1. Diffuse Suppuration
2. Diffuse Gangrene
3. Limited Abscesses or Gangrene
4. Tubercular infiltration
5. Tubercular atrophy

*Diffuse suppuration is generally fatal, at least very often indeed.*

Gangrene is so too, but it is rare. I saw a case of it in the Hospital this winter. The miasmic stench of the patient's breath under these circumstances is not easily forgotten. Although the patient in the case I allude to was removed into a private ward, the other patients in the neighbourhood complained constantly of the smell while the unfortunate fellow lived. Gangrene of the lungs has been observed by a physician in Prague to be particularly liable to occur in insane persons; for what reason it is difficult to conceive. Abscess would seem to be not quite so rare
A termination of pneumonia as Lanenoe has stated, at least this is Dr. Stokes' statement. He says however that it is rather rare, a circumstance which he ascribes to the anatomical structure of the lung, which allows the earlier products of the inflammation to be got rid of, through the bronchial tubes acting as excretory ducts.

"In the brain," he says, "which has no excretory duct, abscess is a common result of inflammation; abscess of the liver is less common than that of the brain, and more so than that of the lung; abscess of the kidney may be placed next in the scale, and that of the lung decidedly the last in the order of frequency." The condition of abscess through dangerous is not necessarily fatal. It appears to be most frequent at the inferior portion or about the root of the lung, and to occur chiefly after phlebitis, injuries, wounds, operations, and in connection with erysipelas.

Pneumonia is liable, and especially after repeated attacks of the disease, to terminate in tubercular infiltration; although in many such cases it is probable that the pneumonia was in reality intercurrent, the first deposition of the tubercle having
The present apprehended morrain is, so far as can be made out from the descriptions of it, a combination of a disease resembling pneumonia, and a disease resembling typhus. This, the true morrain, is highly contagious and very deadly; but a disease known under the name of catarhal affection of the lungs, strongly resembling pneumonia, and usually accompanied by typhoid symptoms, frequently prevails amongst the cattle in many parts of Germany. In the latter affection, which is by no means peculiarly fatal, tartar-emetic in large doses is found to be of the greatest service. It is not contagious, at least it is not so regarded by the Continental veterinary surgeons.
been overlooked.

With regard to the state of indurated atrophy it may be mentioned that it is found as a sequel of pneumonia in cattle as well as in the human subject; and the disease is not uncommonly epidemic amongst horses and cattle. The disease appears sometimes to affect mankind in an epidemic form, and to have so prevailed in 1837.

This leads me to say a few words as to the predisposing causes of the disease. These may be shortly stated to consist in any age, temperament, diathesis, habit of body, circumstance or condition, which is calculated to weaken and debilitate the system, and to reduce it below par; and — (a rare cause) — the lengthened exposure of the healthy system to a dry (or wet) and very cold atmosphere. It is scarcely necessary to say that exposure to cold is one of the most common causes of this disease. The effect of cold in this respect is increased by wind and by a dry state of the atmosphere. On this account pneumonia is a common disease at Milan and Madrid. Acerbi states that there were at
One period, 142 cases of pneumonia out of 175 patients in the hospital of Milan. The disease may sometimes be produced by irritation of a more direct character applied to the lungs as is thought to be the case in the neighbourhood of Vesuvius, where it is common, and where the exhalation of acrid and noxious gases from the volcano is supposed to have something to do with it.

I have mentioned age as a predisposing cause of pneumonia. Childhood especially predisposes to it, and children often die of it after measles, whooping-cough, scarlet fever and the other diseases of infancy. The Registrar-General's report for 1839 states that in Manchester of 501 deaths from pneumonia, 213 were infants in the first, 156 in the second, and 132 in the third year of age. In Liverpool in the same year of 659 deaths from pneumonia, 216 were infants in the first, 212 in the second, and 68 in the third year of age; and in Birmingham in the same year, of 395 deaths, 160 were infants in the first, 136 in the second, and 26 in the third year of age.
This shows that the disease is both more common and more fatal amongst children in the first year, and that its prevalence and fatalitv diminish as age advances.

In a large number of cases of pneumonia, and particularly in a large number of fatal cases, the disease comes in, as it were, at the end of some other disease and gives the patient the coup de grace. If anyone were to examine and analyse a large number of so-called cases of pneumonia, taken, for instance, from the records of an hospital, he would be surprised at the number of cases of pneumonia which would fall into this category. Thus it is seen carrying off patients who have been reduced by fever, or who are in an advanced stage of diabetes, Bright's disease, Delirium tremens and other diseases of the im temperate habit, are also liable to end in pneumonia of a low asthenic type, not bearing heroic treatment. I saw a case in the Royal Infirmary this last winter, of this nature, in which the patient, who had been addicted to drinking, was reduced to a state which appeared utterly desperate, the dyspnoea being most excessive
and alarming. Upon a consultation being held it was determined to try the stimulant mode of treatment, and he was liberally supplied with wine and whisky. Under this treatment he rapidly improved, and eventually left the hospital well.

In all cases of typhoid pneumonia in the unhealthy subject, or when the disease is complicated with other diseases, as puerperal, erysipelas, phlebitis etc., the resolution is extremely slow. Dr. Stokely says that in these cases "months may elapse before the respiratory murmur is restored, and in many cases it is never completely re-established." A patient in the Infirmary of the name of Chalder was an instance of the slowness of resolution in these cases. He was a man about 45 years of age, of an emaciated and unhealthy appearance. He had an inflammation of the cornea and sclerotic which was pronounced to be scrofulous ophthalmia. He occasionally drank, but was not excessively dissipated. He came in at a somewhat late period of the disease. When he came in, he had not much pain, nor fever, but the fever had somewhat
of a hectic character. He was much debilitated, but had little dyspnoea. Tartar emetic was given, and was borne well; he had afterwards repeated blisters to the chest. The disease took on an exceedingly lingering character, and eventually after several weeks, the patient was dismissed with still some pain dulness in the side. He was recommended to take cod liver oil, and nutritious diet.

I shall here insert the following case, which I carefully watched recently.

Patrick Flynn of 39 Wideaw, a shoemaker residing in Edinburgh, Admitted into the Royal Infirmary 25th Feb 1857. Patient has been doing nothing for himself for the last two years, but assisting on his friends; he has been very intermittent lately, and has had a cough for nine months, but it never attracted much of his attention nor confined him to bed until three weeks ago, when he was attacked by a rigor succeeded by severe cough and expectoration, accompanied by dyspnoea and stitching pain in the right side. The sputum was at first scanty, of a sticky consistency, and of a green
colour, but latterly assuming a brighter colour. It is now rusty with a large amount of mucus. Patient sweats at night, he feels weak and his appetite is imperfect. He suffered from popliteal aneurism five years ago, for which all Tyne tied the femoral artery. Patient is considerably, but not excessively, emaciated. Complexion pale. Pulse 90. Tongue clean, whitish, trembles when projected.

**Percussion.** On the right side in front the percussion is tolerably good, tending towards sympathetic percussion at the apex. There is slight dulness under the left clavicle. On the right side posteriorly there is dulness almost all over, from apex to base, comparative at the apex, gradually becoming absolute on approaching the base.

**Auscultation.** On the right side anteriorly the respiration is tolerably good as far as the level of the third rib, although it is mixed with some sibilant rale. At the third rib expiration commences, which occupies both inspiration and expiration; it is more intense towards the base.

On the left side anteriorly both inspiration and expiration are harsh, and expiration...
prolonged, under the clavicle, where expiration is of the same length as inspiration. There are sibilant rales lower down.

On the right side posteriorly in the inferior scapular region there is marked crepitation of a consonating character. There is also crepitation on the left side, but not so consonating as on the right side.

The following treatment was ordered:

**A**

- Antimonii Tartarizati gr. 11
- Spiritus Aetheris Nitrici $\frac{3}{1}$
- Aquae $\frac{3}{\text{iii}}$
- Mixce.

**R**

- Sumat 3 fs ter indies.

- Solutionis sinuariae morphiae 3 fs
- Aquae
- Mixce.

Hae nocte commendam.

EMPLASTRUM LYTTLE 4 x 6

to the right side posteriorly.

Feb 4 27th Patient feels better. Pulse 108. The blood has almost disappeared from the expectoration.
Feb 28th. Patient is breathing more freely to-day. Pulse 110. Tongue much less tremulous. Expectoration still very copious, considerably viscid, and to a very great extent mucous.

March 5th. Continues to improve. Blood has entirely disappeared from the sputum; sputum not to viscid. The right side anteriorly is still slightly tympanitic, the lower part of it is dull. There is on this side an indistinct jerking sound with the expiration. On the left side there are stoving rales. There is distant jerking friction with the expiration over the greater part of both lungs posteriorly, with slightly increased vocal resonance.

March 7th. The tympanitic percussion in the right frontal is disappearing. Crepitation abundant. Vocal resonance not so considerable.

March 11th. For the last four days patient has been going on very favourably; he is taking whisty. Sputum muco-purulent, not so copious, and without blood.

March 14th. Still considerable dulness at the right base behind. In the supra- Scapular space the dullness is disappearing, and over this space there are mucous rales, Crepitation, and friction. Vocal resonance perhaps increased. It is not agophonic nor cavernous, but it is altered in
quality. Vocal thrill decidedly increased on the right side. No marked difference of percussion in front. Jerking respiration all over the right side anteriorly, with an approach to crepitant rale or friction below. Respiration normal and full in left front. Sputum purulent, with hardly a trace of blood.

March 27th Since last report patient had as first been going on favourably, but for the past few days he has felt weaker. The sputum is much more purulent. The dulness at the right base posteriorly still continues, although much diminished. Ordered;

R. Liniment Opii 3 iii

Syrup 3 fl. bis terce minima

April 7th Patient feels himself much weaker.

Dyspnoea very urgent. Pulse small and weak.

Crepitant rale abundant posteriorly.

April 8th Patient is in a very prostrate condition; pulse very small and weak, thin cold and moist, cyanosis considerable, expectoration abundant and very purulent. He gradually became more prostrate and died in the evening at 6 p.m.

The post-mortem examination, 18 hours after death, disclosed what might have been expected, viz: evidence of a great degree of
bronchitis in the left lung; and of emphysema in the anterior part, and a considerable amount of liquefaction in the posterior part of the right lung. The other organs were healthy.

So much has been said and written on the treatment of pneumonia, and that treatment may be said to be, upon the whole, so generally agreed upon, by the majority of experienced and unprejudiced physicians, notwithstanding the disputes which may still prevail in certain quarters, that I do not think it necessary to prolong this essay by entering very deeply into that part of the subject. I presume the object of a thesis to be to enable the Medical Faculty to ascertain, or to assist them in ascertaining, what a candidate's own ideas are with regard to the disease which he may select for the subject of his essay, and with regard to its treatment. If therefore I were asked how I would treat a case of pneumonia, my answer would be that I would endeavour to hit the juste milion between extremes of treatment. I would endeavour equally to avoid the Scylla of Bonvilland and the Charybdis of Razors. I would not subject the unfortunate patient to a dozen bleedings in ten days with cuppings interspersed, nor would I give him 50 grains of tartar-emetic.
in 24 hours. Would I bleed at all? Yes, in some few cases I would. If the patient were seen very early in the disease—within 48 hours from the commencement of the disease, or sooner, — if he were young and robust, lived in the country, had a florid turgid countenance, vivid lips, distended veins of the neck, and great dyspnœa, I would bleed him from the arm — moderately. I should not be very willing to repeat it, and under no circumstances should I think myself justified in bleeding more than twice. I should not expect the bleeding to abort the disease at once, (altho' it may do so in some rare cases) but I should expect it, in the words of Louis, to exercise an appreciable influence upon the disease, — to shorten it in fact. I should regard it as likely to assist very much the after-treatment.

Local blood letting by leeches or cupping glases or both, is also undoubtedly useful in some cases, especially where there is much local pain. In these cases it affords relief by acting not on the lung, but on the costal pleuræ. It is impossible however to assent to the dictum of Dr. Hobbs who regards local
bleeding as the principal remedy. It is a useful adjuvant however in some cases, especially of the typhoid character, which will not bear general bleeding, but which are often much benefited by local abstraction of blood, while the patient's strength is at the same time kept up by wine, beef tea.

The principal remedy I would regard as tartar emetic, which I would give in doses of from 1/4 a grain to a grain every 4, 3, 2, or 1 hour, watching its effect, and withdrawing it as soon as the febrile stage showed signs of subsiding, or if it produced anything beyond a very slight diarrhea. I should rarely expect to find it necessary to give more than 16 grains in the 24 hours.

Blister I would employ, not in the early and acute, but in the later and more chronic stages, especially if there were persistent pleuritic effusion. I would not put on one blister and keep it open, but several, allowing each to heal up. They may be employed earlier in the typhoid than in the sthenic form. I would only use calomel and opium in certain typhoid cases, and in others in which the tartarized antimonial could not be continued. It appears to be more applicable
to those cases in which the disease has reached the stage of condensation. A grain of calomel may be given every hour, combined with as much opium as will prevent it running off by the bowels, until the gums are slightly touched. If necessary,unction may be had recourse to at the same time. I should restrict the use of calomel and opium however to the cases I have mentioned. It is impossible to divest oneself of a suspicion that calomel and opium are frequently given in pneumonia as a matter of routine,—one physician gives because another gives them.

Chloroform has lately been recommended by German and Swedish physicians in the treatment of pneumonia. Dr. Malmsten of Stockholm stated at a meeting of the Medical Society of that city that he had cured (!) two cases of pneumonia and one case of capillary bronchitis by means of inhalations of this drug. Another physician at the same meeting said he considered it very useful in allaying the pain of pneumonia. On this I shall merely observe that chloroform may be a remedy which either kills or cures in pneumonia, but I should do much more to the
former effect that I should be very unwilling to make use of it. With regard to its allaying the pain it is sufficient to quote the old observation respecting pneumonia "Affert plus periculi quam doloris."

The following case I noted recently.

William Ferrie st. 25 a farm servant in the country. Native place Mid-calder. Admitted into the Royal Infirmary Jan. 30th 1857. Ill 9 days. Pain in the right side of the chest, viscid rusty sputum &c.

Patient states that when about a year old he had an attack of small-pox which left the marks now seen on the face. About 2 years ago he was taken ill, with symptoms like those of his present attack, which were relieved in about 8 or 10 days by venesection employed on the second day after his first pain in the right side, followed by application of local blisters, under the advice of Dr. Wilson, since killed in the Crimea. He was weak for some time but recovered, and remained well till a second and similar attack occurred while he was at Mid-calder for which he was treated as before by Dr. Dick. The pain extended to a higher level at this time than on the previous occasion.
About nine days ago having a cold already, he was exposed to wet, and could not change his clothes for some time. He felt cold, and shivering came on, succeeded by pain in the right side, along with increased sputum, which was now also somewhat tinged with blood. In this state he came into the Infirmary. On examination there is considerable dulness anteriorly over the lower lobe of the right lung, chiefly lateral, though extending both forwards and backwards. Over the same region is heard expiratory of a loud coarse character. Respiration in left lung strong and exaggerated, both before and behind. Pulse 104. Face much flushed. Eyes not suffused. Skin hot. Tongue dry and brown. Pain considerable in right side, chiefly below.

Ordered, Pil. Colocyrt. Comp. 11
B. Antimoni tincturizata gr. 11
Infusi Terego 3 viii

Sumat 3 i quâque tertiâ hora.
Jan. 31 st To-day the pulse is 80, full.

Was ordered, B. Antimoni tincturizata gr. xii
Aqua 3 vi

Sumat 3 i quâque secunda hora.
Feb. 1st. Feels a good deal better. Pulse 88. 
Spitum viscid and rusty, but not purulent. 
Very little dulness behind except a little superiorly. 
In the lateral region dulness considerable below 
the 5th rib and downwards. At the same 
place there is crepitation, with the characters of 
loudly consonating friction rale.

Feb. 2nd. Flushed and anxious expression 
grasped from the face. Pulse 148. Pain gone 
though a soreness is still complained of. 
Adimony stopped. Ordered;

\[ \begin{array}{l}
  \text{F. Vini Specacum HBO} \\
  \text{Syrupi Tilia} \\
  \text{Infusi Venega} \\
\end{array} \]

\[ 31/2 \] \[ 3 \] \[ 3 \] 

Mine.

Feb. 4th. To-day there is rustling, faint friction 
on the right side posteriorly, near the lower angle 
of the scapula. Resonance over same part somewhat a gophonic.

Feb. 7th. To-day there is no dulness on the right 
side posteriorly but the respiratory murmur is 
deficient. Expiration prolonged. On the right 
side anteriorly there is much less dulness. At 
the apex the inspiration is rather feeble, and as it 
tore itching, about the 2\frac{2}{3} and 3\frac{2}{3} ribs. About 
the 5th rib on the right side there is a trace of
friction, which below the seventh rib becomes coarse and loud. Agophony is no longer observed. He has had no expectoration for two days, and the last seen was but slightly rusty. Pulse 56 soft. Pleuronic expression gone. The eye detects no difference in the expansive movements of the two sides of the front of the chest, but on careful use of Stimson's measure, a difference of movement equal to two or three degrees of the instrument is observed, in favour of the left side.

Feb 7th. To-day dulness is clearing up. Pulse still down at 56. The friction were on the right side is even more distinct than before.

Feb 13th. Patient left the Infirmary to-day, the symptoms being much the same as on the 9th. Dulness perhaps somewhat increased.

I shall merely observe on the above case, that it is a pretty fair example of simple sthenic pneumonia occurring in a young and tolerably healthy man. The only circumstance which does not look so well, is the fact of its being the third attack of the disease. This might excite a suspicion as to the complete integrity of the lung, as regards tubercle. The patient however belonged to a class of the population.
left liable to tuberculosis than others, the agricultural; and as his recovery was rapid and satisfactory, there appeared good reason to hope that the lung was very little, or not at all, involved in this way. It will be observed that he had been bled on both the previous occasions. The physician under whose care he was, said, that if he had been seen during the first few hours of the disease, it would very likely have been a case for another bleeding, the patient being young, robust and well-nourished.

In concluding this essay, I trust I may venture to express a hope that its many imperfections will, by the examining Professor, be leniently regarded.

J. F. C.