

AN
INAUGURAL DISSERTATION

ON

Pneumonia

SUBMITTED TO THE

PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY

OF THE

University of Nashville,

FOR THE DEGREE OF

DOCTOR OF MEDICINE.

BY

J. Wesley Chiles

OF

Trenton

Kentucky

1857

W. T. BERRY & CO.,
BOOKSELLERS AND STATIONERS,
NASHVILLE, TENN.

Pneumonia

by

J. Wesley Chiles

Trenton

Kentucky

1857

The disease to which I propose to direct your attention is Pneumonia, which is very common in this country as well as in Europe and Great Britain and my information induces me to believe that the inhabitants of all climates are more or less amenable to its influence, though I should suppose more here than elsewhere as the seasons are very changeable and variable, and my idea of the disease is, that it is most apt to attack those who are exposed to the fluctuating vicissitudes of winter than any other season, as the disease prevails to a greater extent in that season than any other.

Though you find Pneumonia complicated with a variety of other diseases to which the human family are subject, yet you always find as pneumonia "per se" save the complications, that is, you are sure to have

inflammation, or perverted action of the capillaries from abnormal nutrition in all the textures composing the pulmonary substance in the part inflamed.

Now, as we have a high degree of inflammation in an important vital organ, it behoves us as men of high moral worth, and scientific attainments, to be well acquainted with the changes being wrought in so important an organ; and as all these pathological conditions of the lungs are disclosed to us by auscultation and percussion, we can lose nothing by making ourselves acquainted with all the sounds emitted from the chest, both in health, and disease.

All writers, I believe, divide the disease, into three stages, or degrees; the first, is that of engorgement, as the substance of the lung is engorged with blood, or seriginous serum

In this condition, we have more blood than air, which makes the lung harder, and more inelastic than in health, and generally retains the impression made by the finger.

The lung, in this condition is more easily torn, its cohesive property having been destroyed, or greatly diminished, and it very much resembles the spleen, hence the term, splenization, which has been applied to it in the same sense, that the term hepatization has been given to the stage that succeeds it.

Now in this stage of engorgement, the mucous membrane that lines all the bronchial tubes that are the seat of the disease, are in a state of inflammation, and present upon dissection a deep red color; succeeding this, if the inflammation continues, the change still going on, the lung presenting the same pathological condition, so far as redness of its structure

both in and without, but, if the crepitation which was present in the first stage is no longer to be discerned; in fact, the lung is consolidated, it contains no air, and in this condition will readily sink in water. The lung being no longer permeated by air, now becomes solid, very much resembling the liver so the term hepatization put forth by Laennec has, at this time, been adopted by all.

It is in the second stage, by some microscopical examinations that the first act of suppuration has been detected, and to this, has been given, the third, or suppurative stage, of which, there are generally two conditions, the first of which has been by Laennec denominated "grey hepatization" and by Andral, "grey softening"; the second, is abscess; but I believe that it is now universally believed by the profession, that abscess of the lung, in

Simple pneumonia is very rare, although there is frequently met with in the lung after death a collection of pus. though I think that such collections are generally met with around tuberculous deposits or foreign substances in the lung

In Pneumonia, one, or both lungs may be the seat of the disease, but generally one or only a portion of one is affected, and quite a number of experiments have been made to prove which lung is most generally attacked

Out of a collection made by "Grisolle" of 1430 cases, double pneumonia was about 18 per cent; pneumonia of the left side about 30 per cent; that of the right side 52 per cent.

As regards the correctness of this, I know nothing as I have had no experience in practice, and never the fortune but to see a few cases. There has also been great

controversy as to whether young or old persons
are most subject to pneumonia, but I believe
that it is generally agreed, that it is as
liable to occur in one, as the other, unless in
the adult there is great constitutional de-
-rangment from other diseases, then, the lungs
are more amenable to the exciting cause of
pneumonitis or inflammation of the substance
of the lungs, and I would suppose that one
portion of the lungs was as liable to be attacked
as the other, though some statistical reports
show conclusively that the lower portion is
most frequently the seat of inflammation, and
I would think that it would always be better
for the victim of the disease to be so fortunate
as to have the inflammation thus seated as a
suppuration thus formed has a tendency to
permeate the remotest bronchi.

Now when we are called to a patient

labouring under pneumonia, there are few diseases that it can be confounded with; and these are Bronchitis and Pleurisy with which pneumonia is very frequently complicated, but if what Professor Bowling says be true, (and his information is from such a source that it cannot be doubted,) it is impossible for it to be mistaken for any other disease.

He (Dr Bowling) says, "the lung labouring under Pneumonia speaks clearly, and emphatically;" and says,

"Oh! dear Doctor, can you tell,

What will make Pneumonia well?"

Now this being the case, the doctor being informed of the fact, in plain language, cannot take his ear from stethoscope, or chest of the patient, and say anything else than,

Yes! "Pneumonia I can tell,

What to do to make you well,

unless he be deaf, or unacquainted with the

English language, and such a follower of Hippocrates, has no business being honored with a pair of saddle bags in this country or any other, as he would not be recognized by Pneumonia, or any other disease, as a competent administrator, or alleviator.

Now besides the signs before mentioned, by which it is recognized, we have other phenomena giving us unmistakable evidence, that we have pneumonia to contend with; and there are also signs given us by which we can determine the stage or degree of the inflammation; these are, the sounds transmitted to the ear from the chest, as these changes are being wrought. We have the resicular, or healthy murmur; the crepitant Roushus; and the Bronchial respiration.

Now we frequently have the two first signs present at the same time, the two acting

together gives us this crepitant rousus, and Andral's view of the cause of this crepitant rale, I have no doubt is correct; He says, "it is produced by the passage of air through the liquid, and the formation and bursting in quick succession of quite a number of little air bubbles." Now when this creaking sound has ceased, and the ear is applied to the corresponding side of the chest, it catches no sound at all, but there is a kind of regurgitation or heaving up in respiration, though frequently we have a new sound altogether coming up to the ear, this is not the first, or healthy sound nor is it the second sound, but it is the third sound above spoken of, the bronchial respiration

Now this last phenomena is one of exciting interest to the practitioner, as it is impossible for him to tell whether, or not, the lung will return to its normal condition,

or, whether it will pass into that of pusulent infiltration, so he has only to fold his arms and remain quiet, and trust to nature, and she will not allow him long to remain in suspense.

Such then, are the physical signs that accompany, and reveal the successive changes of texture, destructive, and reparatory, which take place in inflammation of the lungs: with a few varieties of exceptions, and modifications, with which a man can only become acquainted by serving a long apprenticeship, and making himself well acquainted with all the rational, as well as physical signs arising from Pneumonia.

In the majority of the cases that you find, you will always find in the setting up of inflammation of the lungs, that there is a marked degree of shivering, followed by great febrile excitement and frequency of pulse.

then you have a sense of oppression of the chest, accompanied by a cough and pain or rather as it is termed by a stitch in the side, disclosing to you the seat of the inflammation. The cough as well as I recollect was represented by Dr Bowling, as being dry in its character at first, but shortly becomes accompanied by a peculiar kind of expectoration, of a plum juice or brick dust color, and possessing great tenacity. The respiration, or dyspnoea in this stage may be moderate, or severe, though I think that in most cases the patient complains of great difficulty of breathing in the first stage of the disease, but I suppose that it is only when the pleura is involved, that this pain is much observed by the patient, although you find great suffering expressed in coughing, and respiration, and upon pressure, and percussion, when no pleurisy is present.

It is very seldom that you can find a patient suffering from pneumonitis who can lay upon either side, but you always find them preferring to be on their back to any other attitude, the cause of their not lying on the diseased side is obvious, as none of us are apt to impose upon a part when it is the seat of disease, but rather, to mitigate the suffering in every possible way; should the patient lie upon the sound side, the breathing becomes so much distressed, that he falls to the back as his last resource.

The Prognosis in simple pneumonia is generally favourable, In ordinary pneumonia when the treatment is commenced early, and the patient has been previously of good constitution, the disease rapidly succumbs to an appropriate plan of treatment. The most dangerous forms, and those which are under

the prognosis grave, is, when it is complicated with an affection of the brain, kidneys, or liver; extreme age also renders our prognosis unfavourable

The duration of an ordinary case of this disease without treatment, varies from ten, to twenty days; it rarely ends before the tenth day, when it has continued for some short time before the treatment is commenced; when the treatment is commenced with the first symptoms, you may somewhat abort it.

Death from Pneumonia usually occurs early in the third stage, or, just in the passage from the second to the third stage

Having now given a brief outline of the various symptoms by which this disease is easily recognised, I shall now endeavour to lay before you in as laconic a manner as possible, what I consider to be the most efficacious mode of treating it.

Like other inflammatory affections. Pneu-
-monia must be treated upon the antiphlogistic
plan; at the head of this stands the lancet;
Tenesion should be early and freely performed
where it is indicated to be the best depletory
means we possess, but a regular formula of blood-
-letting cannot be adapted to each individual
case, as every constitution has its own peculiarities.

The best guide therefore in the use of this potent
agent, must be the condition of the patient, and
the stage of the disease. When the inflammation
has a tendency to diffuse itself, and attack other
organs (especially the serous tissues) and the
vascular excitement decidedly obvious; the in-
-dividual plethoric, or even in a moderately strong
person previously in good health, to bleed almost
to syncope early, is perhaps the best means of
arresting the disease, and giving safety to
the patient. General bleeding has much more

effect when the inflammation is very high and of a sthenic character, than a local one; If the pulse should rise and become more developed after the first bleeding a repetition of the same is often requisite, but the practitioner must in every instance be cautiously guided by general principles in the use of the lancet.

Local bleeding is better tolerated after the disease has continued for some time and the inflammation been confined to a portion of the lung only, especially, is this beneficial in the second and third stage, as local depletion relieves the existing inflammation without materially weakening the patient.

Next to the lancet, and local bloodletting, pinks, tartarized Antimony; this may be administered in several ways, either as a simple diaphoretic, expectorant, or arterial

Sedative; it should be given in small doses; say from $\frac{1}{16}$. to $\frac{1}{4}$ of a grain every hour or two, until the desired effect is obtained. It is generally well tolerated; sometimes it produces active purging, and emesis, and may unless guarded, be of harm to the patient.

Culomet owing to its peculiar action on the system, and its debitsmizing effects is a most excellent remedy in most inflammations and well indicated in Pneumonia, as it prevents the deposit of plastic material in the lungs, also, it acts as an expectorant to some degree, by keeping up a secretion; its effects are best obtained where it is carried to a degree sufficient to affect the gums slightly, without causing phytalism

Blisters are seldom indicated in the early state of the disease, but are almost of inestimable value in the second, and third

stages especially when infiltration and pus have been formed. Plasters act by checking the inflammation, and preventing the collapse which is so frequent in this stage; they also stimulate the absorbents and aid nature in overcoming the depressed state of the system.

Veratrum viride is also highly spoken of as being very efficacious in this disease as well in all other inflammations; also, Sanguinaria canadensis and senega in the second and third stages is recommended by Dr Bowling, but the practitioner must be ready at any, and all times to contend with the different stages, and symptoms as they appear, regardless of any regular formula.

Gentlemen,

Having now concluded, and given in as brief a manner as possible, the general outlines by which the disease may always be

recognised, and the method of its treatment,
I unhesitatingly present it to your honours
for approval, and sincerely hope that it may
meet with the approbation of you all.