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.

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Pneumonia or inflammation of the lung, is most frequently seen as it affects only one lung, though it may be developed in both. In either case it may involve the entire tissue, or be, as is frequently noticed, limited to a portion of any of any of the lobe.

When both lungs are affected the disease is termed double pneumonia, when one is involved, it is called simply pneumonia, and when only one lobe is affected, the complaint is then designated as lobula pneumonia.

The air cells or minute structure of lung is sometimes alone affected, though this is rarely the case; when however it does occur, the disease is
designated as vesicular pneumonia.

When this malady assumes a typhoid character, it is then spoken of as typhoid pneumonia. This disease is not unfrequently associated with others, among which we not unfrequently see that of bronchitis: pulmonary edema: pleurisy and certain stages of phthisis.

Stages

Pneumonia has by authors been divided into three different stages. The first stage is known as that of congestion. In this stage the lung is gorged with a reddish frothy serum and presents a deep red
appearance; the air cells contain more liquid than air and the lung is consequently of a greater specific gravity than in its natural state; crepitates less under pressure; retains the impression of the fingers and in this stage does not sink in water. If this disease continues to advance, its characters change; the color of the lung now becomes of a grayish red, it no longer crepitates under pressure, is imperious to air and is consequently heavier than in the first stage. Being hepatised or rendered like liver, it now no longer shrinks on water the fluids contained within its cavity are less frothy and diminished in quantity,
and when it is cut, the section resembles the liver and hence the term heparization which is given to the second stage.

In the third stage which is called (Saennse) gray heparization and by Andresal gray softening, the lung continues as dense and imperious to air as in either of the preceding stages and presents both externally and within, a yellowish or gray color.

The softening of the areolar tissue continues to progress and the structure of the lung is more easily broken than in either of the preceding stages.

This diffused suffocation
Sometimes leads to the formation of abscess, though this is not generally the case.

Acute inflammation of the lung sometimes terminates in gangrene; when this happens, the color changes to a dirty olive or greenish brown; the lung is softer than in either of the preceding stages and the odor is almost unendurable to those about the room, even the patients themselves suffering from the disagreeable smell.

It has been observed that pneumonia affects the right more frequently than the left lung; also that it attacks children often more than men,
and men often than women.

Symptoms

An attack of pneumonia generally commences with a chill followed by an increase in the frequency of the pulse; by heat of skin and in short by inflammatory fever; there is usually more or less difficulty of breathing and cough with pain in the chest; the latter being usually below one or the other nipple according to the side affected.

The pain is not restricted to this particular spot, but is observed sometimes in the side and back.
It is said except when the pleura is affected, there is little pain felt, but a sense of burning or oppression is noticed within the chest.

The pain of pneumonia is often observed to commence with the disease and subside before it, and very frequently this occurs after depletion.

Patients bear percussion badly in the commencement of pneumonia, or prepare of any kind about the chest, and sometimes not even the prepare of the bed clothes. The pain is also increased by a full inspiration.
In an attack of pneumonia the respiration is always hurried, sometimes amounting to forty, fifty, or more in a minute, the natural number being eighteen or twenty; there is always more or less difficulty of breathing according to the violence of the disease; cough is very apt to be present during the course of the disease, generally commencing with it and being at first dry, but after the lapse of a few days it is accompanied by a peculiar rusty coloured spuuta, of such tenacity that it will adhere to a vessel when inverted. This peculiar spuuta is one of the best characteristic signs.
of the disease and by it, when all others fail, the physician is enabled to diagnosticate the complaint.

As the disease advances the spuita increases but seldom attains a considerable amount, unless, in the case of young children who may have the lungs engorged to such an extent as to prove fatal.

The decubitus of a patient with pneumonia is generally on the back, or, on the side in which the pleura is not affected. It is thought by some that patients lie best on the side affected but this is most
likely to be a mistake, since they cannot bear the least pressure not even perception.

Fever is almost an universal accompaniment of pneumonia, especially if the symptoms be severe. It generally occurs in a remittent form once a day and in the evening, though not infrequently there is no intermission the fever continuing from day to day.

The skin is usually hot and dry and there is loss of appetite, the urine is high colored and diminished in quantity.

In some instances delirium is a symptom in this disease.
and when it occurs should be regarded as denoting an undue arteriolesation of the blood that the lung has ceased to perform the duty assigned them, and it is consequently not a favorable symptom.

Percussion and auscultation are the principal means by which a physician is enabled to diagnose the disease or its duration and extent.

Percussion is of little service in the first stage but by auscultation a respendent voice there may be heard and the natural vesicular murmur is wanting or if heard at all, is heard mingled with the
Exsanguant vale.

After the advancement of the disease into the second stage, auscultation ceases to be of much service, the lung being impervious to air; there is however heard bronchial respiration indicating consolidation of the part inflamed. Bronchophony is frequently if not universally observed in the hepatized lungs, it being said that the voice may be heard through the lung with almost the same distinctness as when it issues from the mouth.

There is in this stage a perceptible
dullness of sound on percussion, and
sometimes even flatness.

In the third stage the sound
elicited on percussion is the same
as in the second stage and that
heard by auscultation is also
the same.

It has been observed that
pneumonia occurring in debilitated
persons is generally less severe
and when thus occurring it is also
seldom attended with much
severe pain or expectoration.

In children the diagnosis of
pneumonia is more obscure and
as those under the age of six
are most liable to the disease
many of the symptoms by which a case may be recognised, are frequently wanting.

In children pneumonia is very often associated with or follows other diseases such as whooping cough, or measles.

Bilious pneumonia is frequently in accompanyment of hepatic disease or derangement, especially in the south or in miasmatic districts.

In those cases it is most frequently associated with intermittent and remittent fevers.

The symptoms by which a case of bilious pneumonia is known are tenderness on pressure in the
right hydropneumonia, pain in the right shoulder, vomiting and a yellowish hue of the eyes.

This disease prevails mostly during the winter months and attacks those who have been most exposed to the vicissitudes of the weather.

Prognosis

When pneumonia occurs in an uncomplicated form and attacks only a lobe of one lung, there is a reasonable hope for a successful termination if it be properly treated.
If it occurs complicated with or after intermittent or remittent fevers it seldom proves fatal but usually gets well with the fever.

**Etiology**

The causes of pneumonia are very varied, the most frequent being however, exposure to a cold and variable climate.

The next most frequent cause is exposure of the lungs to intaking or poisonous substances.

The continued over exertion of the voice, is another very frequent cause, or over exertion of the body.
and it is believed by some that the too free use of vinous liquids may give origin to the disease.

Persons are however—sometimes attack with pneumonia without being able to assign any cause.

Treatment

As regards the treatment of pneumonia, it must be varied according to the strength of the patient.

As a general rule, blood should be drawn at an early period, especially if the patient has
a good constitution and is robust.

The extent to which it should be taken, is, as a general rule, from sixteen to twenty ounces, but this should be decided mainly by the strength of the patient and violence of the disease.

By bleeding the function of the lung is diminished and it is left more at rest, a point which is essential to the cure of an inflamed organ.

The general rule by which the bleeding should be regulated is, to place the patient
in an upright position and bleed through a large orifice

to approaching syncope or

until the symptoms or some
of them have abated and
the pulse becomes soft.

If in twelve or twenty
four hours they should
return the operation may
be again performed, care
being taken that it is
not carried too far.

After bleeding has been
only performed it is
recommended that the bowels
be freely moved with un
active cathartics and the one that has been found most serviceable is, calomel in combination with jalap, sena or epsom salts.
After the bowels have been thus acted on tartrate of copper given in small doses frequently, say one twelfth of an eighth of a grain every hour or two will prove of great service.
After the lapse of three or four days these remedies may be changed and opium, ipecacuanha and calomel given in combination; in the dose of three grains of calomel and one grain of opium and one
of Speecenaha at night.

By this combination it is expected that the patient will sleep well during the night that the difficulty of breathing will be alleviated and that an action on the skin promoted.

If the symptoms continue and it be not safe to draw blood by the arm, it is recommended to take it by cups or leeches applied to the chest, so as to draw four or six ounces. These remedies will generally stop the progress of the disease.
If, however, they do not, then a mercurial plan is recommended which may be best obtained by giving calomel in combination with some other article to prevent it from running off by the bowels.

The formula before recommended, given not only at night but also every three or four hours during the day, is the one that may be most relied on. After the general excitement has been partly reduced by these means, blisters are recommended to be applied to the chest over the region of the inflamed
organ and of a size sufficient
drug to cover the region, say six
by eight inches or even longer; but
if the blister be applied before
the inflammation is partly reduced
there is a chance of increasing it.

Expectorants have been found
serviceable in the declining stage
of pneumonia and those which
have been found most efficient
are the Syrup of Squills and
denudia in combination with a
small quantity of taster-emetic;
and one of the Salts of Morphia
quien is such doses as not to
nauseate the Stomach. Sometimes
owing to the deflexing
influence of taste—notric. It is better to omit it.

If the disease be so far advanced
that the powers of the system fail
or about to fail, then a stimulant
is required, and the carbonate of
ammonia has been found to
be an excellent one given in the
course of from two and a half
to five grains every one or two
hours.

Wine, when may be also
used with advantage.

It sometimes happens that hectic
fever sets in during the course of
the disease, and if so recourse must
be had to sulphate of bismuth
and a generous diet.
If symptoms of gangrene supervene, it is recommended that the chloride of lime, opium, quinia and the muriatic acids be employed, the nitro-muriatic acid being thought to be the best.

The treatment of infantile or lobular pneumonia is the same as that recommended in the other varieties. It should be however practiced with great caution as children do not bear the depressing influences of venisection and later--emetic as well as adult; Calomel is mostly
to be depended upon in the treatment of infantile pneumonia, given as in the formula for the treatment of the other varieties. Not unfrequently debility is a prominent symptom when prompt attention will be required; stimulants and a good diet being found highly serviceable.

The treatment of bilious pneumonia is a little different from that of common pneumonia. Such patients not bearing the same amount of bleeding,
but this remedy duly moderated is found to be beneficial even here.

At the commencement of this form of the disease from twelve to fifteen ounces of blood may not be too much.

The mode of ascertaining the extent to which this remedy should be varied is, by placing the patient in an upright position and with the finger on the pulse stop the flow as soon as the pulse begins to falter.
If the case be of such a character that general blood letting cannot safely be practised, then recourse must be had to cups and leeches. The bowels should be evacuated by giving Calomel followed by Sulphate of magnesia and this remedy is even recommended throughout the course of the disease if the bowels be not irritable unless evidences of debility present. If at any time vomiting be decided then Sulphate of quinia given in the dose of one or two grains every hour or two, has been found beneficial.
The plan recommended is at first to evacuate the contents of the stomach by an emetic of ipecacuanha, followed by Calomel in combination with rhubarb; after which the patient should have half a grain of opium and ipecacuanha and two grains of Calomel, to be given at intervals of three or four hours until the gums become become tender. On the appearance of debility stimulants are to be used commencing with the milder clap at first. The diet should be good and it is even recommended to be stimulant if the disease be not far advanced.