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BY

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We enter now upon the consideration of a subject which has in all ages of the world vexed the minds of physicians of every country, and upon which a great deal has been said and written; all of which tends to show, the more plainly, the unsuccessful experiments, and disappointed hopes of the investigators.

All attribute to it a singularly uncontrrollable obstinacy, and agree that it has long held the first place among the opprobria medicorum, and that every attempt of the profession to remove this stigma has proved nitherto in vain.

Tubercular phthisis, may be regarded as not only the most insidious and
dangerous among the pulmonary affections, but as surpassing in its destruc-
tive effects, all the other dis-
orders, hydrophobia excepted, to which
the human constitution is liable.

Admitting the incurability of tubercular consumption, it would
be worse than absurd for us to
let our efforts cease in behalf
of suffering humanity, for
much may be done to lessen
the immediate evils and much
may be done to alleviate the pain
and possibly to prolong life to an
indefinite period.

A disease so varied in its course and extent, as tuberculosis
phthisis is, can hardly be rendered
Wool in a definition of symptoms, but the first appearance of ill health, when the patient suffers in the early stage are the following: cough, with scanty transparent mucus expectoration; haemoptysis occasionally; afterwards opaque purulent and abundant expectoration; quick pulse and fever in the evening, particularly ending in night sweats; shortness of breath gradually progressing, and great emaciation and debility. This supervenes sooner or later. The physical signs are irregular expansion of the chest, dulness on percussion, with bronchial sound of respiration in the upper part of the chest.
cavernous respiration and pectoril. syring. All of which indicate the partial consolidation of the lung, and the formation of cavities, communicating with each other and with the arteries.

We will now speak of the anatomical changes which take place in the lungs. They are many, but the most common are these: The lungs are consolidated more or less in irregular masses; they are also found excavated into hollows of various shapes and sizes, which are sometimes empty and sometimes contain a thick liquid matter.

In examining the lungs of persons who have died of phthisis, we
find in them a number of round hard little bodies, of a light semi-transparent, reddish brown or skin-colour sometimes grey or ash-colour; and sometimes devoid of colour and quite transparent. They vary greatly in size from a pin's head to a teaspoon. Their hardness sometimes equals that of cartilage; these are the muscular intercles. They are sometimes solitary and studing a tissue otherwise healthy, but most generally they are found in lamina of several together, and then they form considerable masses, with the interstitial tissue indurated between them. They are distinct in the inferior lobes of the lungs, and near the root of the lung, they are conglomerated in
mases. These may be found in them in the upper parts of the lung, yellowish white, opaque specks, generally in their centre, but sometimes in their margins. Now in the distinct granulations, the opaque part is a mere speck; but in the conglomerated mases, the opacity is of considerable size. There is a consolidation of another kind, which is diffused through the pulmonary tissue to some extent of no particular shape, but occasionally limited to lobules. It is often as hard as the miliary granulations, and sometimes the same colour; but most commonly of a darker hue and in the centre of these dark indurated mases may be seen here and there opaque light-coloured spots, very distinct, of a dead
yellowish white, something like the military granulations. And in these light and opaque spots may be recognized opaque, yellowish white rounded masses differing in form and size nearly as solid as the dark induration, but often less tenacious. Some are of a cheesy consistence, and others are formed approaching the fluid state, retaining still their light colour and opacity. These opaque masses which are undoubtedly tuberculous, tend to soften, partially or wholly, and the masses are sometimes found, consisting of loose clots in a purulent, mucous, or reduced to a curdy kind of puriform matter. The tuberculous matter is not apprenergently found dif-
fused through the whole extent of
the pulmonary tissue, resembling
very closely the advanced stage of he-
patization; And except that its colour
is more maculé, and it has gener-
ally, more of the slight opacity of
Tuberculous matter, it resembles
very closely, indeed, a hepatized lung.
But we find what commonly
met with in hepatized lungs,
circumscribed abscesses or cavities con-
taining a fluid matter. And to this
softened and fluid state all the
conditions which we have been de-
scribing, tend to predispose
Cavities or excavations, various in
number and form, and of
dizes from that of a chert-stone
upwards to the extent of the whole lobe called vomicae. These vomicae are sometimes formed singly, and sometimes they contain on both of the remains of the suprane pharynx on a mixed mucous salivary and purulent fluid tinged with blood. They communicate often with each other and with the air tubes. The walls of the cavities are sometimes simply the inflamed pulmonary tissue condense, and sometimes they are lined by a fibro-cartilaginous membrane, formed by a secretion of coagulable lymph. Thrown out from the walls. The membrane is occasionally very fine and thin like mucous. Besides these chief and essential changes, there are many others which may
be found in the lungs in phthisis, such as haemorrhagic effusion, and consolidation. Inflammation and hypertrophy of the lungs; inflammation; thickening, ulceration, and dilatation of the bronchial tubes; or in a wound, phthisis is a constitutional disease and various lesions are frequently found in other organs besides the lungs.

We will speak of the primary formation of tubercles, which question is involved in great doubt, obscurity, and difficulty. The principal changes of the tissue of the lung in phthisis pulmonalis may be reduced to two kinds—1st an induration of a greyish brown colour, and 2nd a yellowish white matter, which is at first hard
but becomes gradually softer until it attains the liquidity of pus. Now, if we examine the gray induration of the pulmonary tissue, which precedes the production of the yellow tubercle, we find two things are remarkable. That there is an increase of substance in the lung, and that its substance is harder than the healthy tissue. The first, denoting the deposit of a greater quantity than usual of the nutritive secretion, and the second preceding, partly from the same cause and partly perhaps from an imperfect animalized or vitalized state of this secretion. This local increase in the nutritive secretion must have been preceded by a locally increased vascular
action - and from the degree with
the increased secretion exceeded
that of hyper trophy and amounted
to an over flow and effusion in the
interstices of the lungs. It may be
that this pathological increase
was not less than inflammation;
for it is known that inflammation
will cause an over flow of the nutritive
secretion and that the acute
form will generally produce a soft
inflammation - and the chronic
form an increased increase of
substance. This induration of the
lung which precedes the formation
of tuberculous matter, is probably, an
effect of chronic inflammation.

Now, after a time more or less pro-
The incrustated grey mass presents whitish spots, which increase in size, and after a while the whole mass is converted into a substance of a yellowish-white colour, which for a while retains its former consistence but losing it gradually becomes the soft and granular substance which has been described under the name of Maturated Tubercle. This process is analogous to that of suppuration.

But we find Tuberculous Mater deposited sometimes in a tissue bearing no marks of inflammation at all. This deposition of Tubercle is certainly dependent upon a diseased state of the blood vessels, and of the fluid they contain—Blood which is rich in fibrin, furnishes the more
Vital and organizeable products which are easily reabsorbed; or if organized are sufficiently like the tissues of the parts not to irritate them, but if the blood be poor in nutrient matter the deposit will be difficult of absorption, and more calculated to irritate it as a foreign body—Now this enfeebled, debilitated, weak, and diseased state of the blood-vessels is characteristic of the leprous or tubercular diathesis, which is recognized by pale complexion, narrow chest, soft and flabby muscles and a languid and feeble circulation.

Remembering the circumstances under which consumption occurs the causes may be comprehended more.
Three factors—Inherent, predisposing and etiologic. The hereditary origin of Tubercle is almost universally admitted by all writers at the present day and it may be considered one of its most fertile sources. And its strength is increased if the parents were laboring under the disease at or a short time before the birth of the child. It may descend from either parent, but it would seem that the mother exercises the greatest influence in this respect and more particularly if the nurse is the child herself. This hereditary tendency may skip over one or two generations and reappear in the next. It may also be so strong that no care or favourable combination of circumstantial will prevent its local man-
manifestations and it may be to weak that it will never break out if the exciting causes could be warded off. The predisposing causes of consumption are those which tend to debilitate the powers of life, and they appear to operate entirely by favoring the deposition and development of the rudiments of tuberculosis. These causes are very numerous of course.

Excess of all kinds, poor and unwholesome diet, exclusion from light, and from fresh air, and mental depression; previous diseases that injure the constitution, are some of the most powerful. Long continued exposure to wet and cold, the depressing passions, venereal excesses, repeated courses of Mercury, purges and menstruating discharges,
All these causes tend to destroy the balance of the functions and lessen the vitality of the system generally.

The exciting causes of consumption are the inflammations of the chest—pneumonia, pleurisy, bronchitis. Either of these inflammations, when badly treated and only partially subdued, passes into a chronic form and either develops immediately, pathological inflammations in the lung, or by lowering the vital powers generally, leads to their formation from perverted nutrition.

The symptoms generally present in a case of phthisis are—cough, haemoptysis, dyspnoea, hectic fever, and diarrhoea. Cough is one of the earliest symptoms.
of consumption, and it is that which, for the most part, first attracts the attention of the patient or the patient's friends. At first it is very insignificant, generally slight, dry, and hacking. It occurs much more frequently early in the morning, particularly when the patient first gets out of bed, but we find it very irregular in this respect. It will occur at any period of the day if the patient should make any unusual exertion. The expectoration is at first like the cough, very slight consisting merely of a little whitish or transparent mucus. As the disease advances, the cough gradually increases in severity, and the expectoration becomes more and more abundant and the expectoration composed of a yellowish colliqued mucus mixed with froth and mucus,
Hemoptysis may be defined as a kind of expectoration. The expectoration of blood.
It is invariably a symptom of phthisis, but it may occur from many other causes besides that of Tubercle. I may be caused by mechanical injury of the chest, and also by the derangement of the uterine functions. But when there is no occasions menstruation and no mechanical injury of the thorax, the pure-hemoptysis is pathognomonic of phthisis.

Dyspnea seldom occurs till towards the termination of the disease; and even then it is not always present. But although the phthisic patients in general do not suffer much from dyspnea, their breathing is always hurried and short. It is not a symptom of any great moment in the disease
The hectic fever which always accompanies phthisis is of much greater importance. It generally attacks the patient very insidiously; he feels a slight sensation of chills and towards evening and in the night his hands and feet are very hot and dry; and in the morning he perspires very profusely. The symptoms which are most marked in hectic fever are, the perspiration which is entirely too great for the previous chills and heat, and the state of the pulse, which is generally very greatly accelerated, ranging from one hundred and thirty beats in a minute.

Fever or Latin diarrhoea comes on, which is a very common and unfavorable symptom. Usually, it does not come on until the
disease is far advanced, but when it does make its appearance, it is a source of great annoyance to the patient, and tends rapidly to waste away his strength and flesh. The diarrhoea most commonly depends upon ulcerations in the small intestine and colon.

The physical signs of phthisis are very obscure in the early stage of the disease, and consequently cannot be depended upon.

While the tubercles remain so small as not to encroach upon the air cells, no alteration takes place in the natural respiration. Thus, when on percussing the chest, the resonance of the lungs is still retained. But when the
Tubercles enlarge and consolidate, both
the vesicular murmur and resonance
are destroyed, and we have dulness on per-
suffion and bronchial respiration. This
flatness of sound is generally heard under
the clavicle and at the armpit.

As the disease advances and softening of
the tubercle takes place, other sounds
are heard which differ in proportion
as the tubercle becomes more soft. At first
crepitation then gurgling. In the last stage
of phthisis, when the tubercles have been
expectorated and large cavities formed in the
lungs communicating with each other, we
can perceive, by the use of the stethoscope
causious respiration and postmbronchitics
are almost unrecognizable signs of tomice
in the lungs; there is an this stage
usually a sunken in of the walls of the chest, just below the clavicle and other points of the upper region; generally more plainly to be seen on one side than on the other.

Thus we have described very imperfectly, as we are not aware, the pathology, causes, and symptoms of this terrible disease. We have now only to speak of the treatment, which for the most part can be but palliative. A great deal has been done and written, about various remedies which have been used in the treatment of this disease for the purpose of removing the tuberculous deposit, but whether any real good has resulted from
either of these articles, in this respect, has not, as yet, been well as- 
certained.

The remedies which have been most praised, of late, because of their in-
tue, of sometimes, arresting the pro-
gress of the disorder, are iodine and 
cod-liver oil.

The use of iodine is better adapted to 
the early stages of phthisis. When phthisis has 
just commenced, that is, when we perceive 
that a tuberculous action is going on; 
that the process, which ends in tubercu-
losis; the action is at work, it is not
said, that iodine is of great benefit to the 
patient. But whether this article has 
any specific virtue, more than any other 
alterative, we are unable to say. The dose
For an adult it is from three to six
drops of the solution, two or three times
daily.

Cod-liver oil has been used very
extensively within the last few
years in the treatment of pulmo-

nary consumption, and it may be re-
garded as a most valuable remedy, one
that cannot be exchanged for any
other known at the present
time. But whether Cod-liver oil,
does even cure consumption when
it is far advanced, and when condi-
tions exist in the lung is not known.