On

Smmons Ulceration of the Larynx

or

Phthisis Laryngea,

its causes, diagnosis, morbid appearances

and

TREATMENT.

by

Henry Payne Jos

Treatment: a few evacuation of the necessary means.
The soft parts which added to the cartilages constitute the structure of the Larynx are the mucous membrane whose secretion lubricates the tube and on the . . . contains numerous follicular glands for the special purpose of lubricating the chords and the ligaments which are engaged in producing the voice and those which connect the cartilages with each other and with the os hyoides, the muscles of which the larger govern the position of the Larynx, and the smaller the smaller the state of its aperture and of the rima glottidis; the vessels of which the principal are derived from the superior and inferior thyroid arteries and lastly the nerves which are branches of the pneumogastric of the eighth pair.

Of these parts, that which is most liable to disease is the mucous membrane. This is what its delicate organization and functions might lead us to expect since those organs which are vascular and employed in the process of secretion are more subject to disease than those having no such office to perform. This liability to disease is in proportion to their vascularity and activity of functions.

The mucous membrane of the Larynx is the medium this which its mechanism and nutrition are in a great measure sustained so that any derangement in the functions of so important a glandular organ is very liable to implicate those of the whole Larynx.

Furnished with such important nervous communications the sensibility of the Larynx is rendered very acute by which it is able not only to perform the functions of nutrition secretion and absorption.
but also to persist the introduction of specific bodies into the Larynx and this the medium of the glottis act as a guard to the pulmonary organs and that of the voice to the system at large. In this way also the Larynx sympathizes with many diseases affecting other and distant parts of the body both of a functional and organic character. Hence the tone of the voice has always been taken as an important sign not only as a means of diagnosis in disease, but as marking the different stages of many diseases and affording a means of prognosis in others. Impressions made on any part of the respiratory tract of mucous membranes produce this reflex action an irritation which excites the act of coughing. In sensitive females laboring under acute bronchitis the irritation communicated to the Larynx is sometimes so acute as to bear some of the symptoms of Acute Laryngitis.

Considering this extreme sensibility and the vascularity of the Larynx and how it comes in contact with the external cold atmosphere, it is surprising how it escapes the effects of this probable cause of disease. for primary idiopathic disease of the Larynx is of rare occurrence as compared with the secondary diseases of that organ.

From the notice of Structure of the Larynx I will now turn to the subject of this dissertation namely Putridis Laryngis.

This disease is an inflammatory affection of the membrane or cartilage of the Larynx, occurring in a chronic form and depending on a specific change in the fluids circulating in the system. The name of it is very unmeaning if not erroneous and has therefore been indiscriminately applied to all the varieties of chronic Laryngitis being used as synonymous with catarrhal Laryngitis, chronic laryngitis, syphilitic laryngitis and gastric laryngitis.
or that form of it arising from chronic inflammation of the Stomach and chiefly met with in the plethoric and those of interjacent habits. That specific morbid state of the fluids on which true phthisis saprophytica is held to depend is most likely due to a change in the chemical constitution of the fibrin allumen which acting as a poison produces that lay term of evils known as necróphila or Sarna.

In such a condition of the circulating fluids, the inflammation of the Larynx from whatever it may have arisen is of a characteristic local type and unless relieved by remedies soon proceeds to ulceration or to the formation of abscess, and onward to general disorganization of the voice organ.

All inflammation however in a subacute habit is not necessarily necróphila, although the constitution be strongly painted. Such will be the case in cases where the inflammation is located in the lymphatic glands or mucous membrane.

Excepting the tuberculous disease which is very rare, the chronic inflammation is of all chronic diseases of the Larynx, perhaps the most unbearable and fatal, and depending as it does on precisely the same causes as the allied disease of the lungs, we can easily understand the importance and danger of such a disease; count its grave complications and frequently have reason to presume the futility of our best endeavors to arrest it.

This disease is not infrequent among those portions of the Community which are exposed to those causes which excite the necróphila constitution, and as such causes prevail more in manufacturing than in agricultural districts it is therefore principally seen in populous towns where the bulk of the inhabitants are telling mechanics.
That the strumous disease or the fluids circulating in the body is the essential cause of this disease may be inferred from the many of the symptoms which attend it being indicative of scrophula which thus we defined a condition of the vital powers, as the body a manifestation of the eruption of disease in its healthy parts and organs of the body that scrophula before any other dyspeptic affection may be taken as the type.

As is the case with any other constitutional disorder the result of a specific materia mediæ in the circulating fluids, so with scrophula we find that the body cannot be infected widely or generally without one or more indications or more faint if such infection presenting.

Although such indications may exist the virus may lie dormant without leading to actual disease until excited by certain well known causes concurrent with this essential one to work its progress or these tissues or organs of the body subject to its action.

And this would appear to the consistent with that is known of the circulatory actions of certain poisons such as preparations of mercurious acid digitale that are open to chemical tests or at least cognizable by the senses.

Nevertheless scrophula does occur in such different degrees and phases being so influenced by age, habit and others causes that in some cases it is difficult to describe its limits or to say with precision what disease may or what disease may not be of a strumous character.

And as before observed scrophula may be so slight or so subtle at times when any acutest cause of inflammation may be applied, or it may be so concealed in those parts or organs which it has chosen and appropriated for its seat that an inflammation arising in other parts or organs will not have the scrophulous character.
but hence a different or a perfectly healthy cause.

It has been thought more correct to attribute the original cause of phthisis pulmonalis to a specific virus rather than to an abnormal condition of the blood plasm with low vitality, which according to some pathologists is the cause of scrofula because such a notion appears vague and might with justice be accused as the cause of every depurative affection.

It is unquestionable however that there is both faulty nutrition and assimilation in scrofula but these are held by pathologists to pertain also to the same extent in other diseases of a very different species.

There may perhaps be little difficulty in assuming the scrofulous virus to be capable of lurking in the body so subject to its care by a tendency in the organism to maintain the balance of health, as to be scrofulous when it is considered that persons have breathed paludal and other noxious fumes from year to year and never been affected with inconvenience therefore.

In scrofulous as for example in the breast of females the germ of the disease may remain long dormant till excited to growth by inflammation the result of an ödem in the mammary or some disorder functional or otherwise of the uterine system at the critical period.

When the carcinoma has advanced or become open cancer, the cells of the tumour present various complex appearances identifying the indigenous formation.

These appearances signify progressive development of the cells from their origin in the formative blastema, which had therefore probably existed in the blood as a canceous blastema long prior to the formation of the phthisis
cell or the appearance of a single symptom of cancer.
And such a state of the blood is generally shown by those almost
inexplicable signs which indicate the cancerous cachexia.
Moreover such a transformation of blood plasma has been found in the
urine leading from the kidney in cases of cancer of that organ.
That cancer in all likelihood depends originally on a specific may be
further confirmed by a sentence in the clinical lectures of
Dr. Hughes Bennett. He says "we find that the peculiar constitution
of the blood, or the general vital power of the organism, exercises a
very powerful influence on the development of the eruption" (of lepro-
cyphrosis). "This has been long recognized by pathologists in certain
conditions, denominated pernicious anemia, dyscrasia or cachexia.
I propose at present to direct your attention to some of the facts
connected with eruption as it occurs in the body during health
as well as when connected with syphilis and cancerous constitutions
I shall call the former simple eruption as distinguished from that
may be denominated tubercular and cancerous eruptions.
This statement would appear to support the idea of a depraved condition
of the formative cells that all diseases share the eruption as a
by moral or at least in those to which it particularly relates.
Chanel, Todd and other pathologists have adduced many reasons for
regarding Rheumatism as dependent on a specific moribund morbid in
the blood and not upon mere inflammation. And the treatment
of Rheumatism in order to be at all effectual should as in the case
of Pithie's larynx be directed to amending the constitutional
point by improving the loss of tone in the system, especially in the
assimilating powers.
In both these diseases there are certain symptoms which lead to the belief that nature was exerting her powers to get rid of some pestilential element in the blood, as by inflammation, sweating or diarrhoea.

In the present state of our knowledge we have no means of testing the presence of such a poison, but this need not be surprising since we are often unable to detect many powerful poisons belonging to the organic kingdom, and until we know their elements and the exact proportions in which they are combined, this must be the case.

The most careful application of Chemistry has failed in detecting the presence of anything which pathologicalists will acknowledge as a poison existing in malaria districts. Hence one reason why we have no antidote to apply against those symptomatic effects or certain cases where the malignant fevers to which they give rise.

And yet there is evidence, though of a circumstantial kind, that it is sufficient to prove that such fevers are caused by a poison from the single fact that fever patients have frequently been known to date their illness from the moment when they entered the presence of another similarly affected to themselves and to attribute their fever very properly to breathing what they have called a sickening of odour.

When scurvy or attacks the lungs giving rise to phthisis pulmonary, it has not infrequently been observed to be contagious even in this country but this has been more particularly noticed in Italy.

The possibility of the conversion of the fibrii or allatoxin contained in the blood in Scurvy may be further countenanced on considering the numerous and very various changes which organic substances undergo out of the body. For example the juice of the grape exposed to the air and slight heat is converted into alcohol, carbonic acid and water.
The elements of a powerfully corrosive poison exist in cane sugar and formic acid and is transformed into Chloroform by the agency of a single element.

Unless we admit the existence of a specific materia medica as the essential cause of Turkey Angina, it will be impossible to account for all the symptoms of the disease, and the opinion cannot lead to any practical error while it may eventually serve as a guide to a more successful method of treatment, than any now in practice.

Syphils is an hereditary disease being transmitted from parents to children—form family to family and pervading entire generations, only to be arrested in this contaminial course by individuals prone to it, cautiously avoiding everything which might disorder the health and favor the disease. Although well directed measures may succeed in eradicating the disorder in one individual, it may be that they will require to be observed and kept up by even successive generations, before the virus be altogether neutralized, so tenaciously does it retain its hold in constitutions once contaminated with it.

This must be obvious seeing the different degrees in which it may be prevented or called into action by concurrent causes.

Men once eradicated the virus is extremely liable to be reactivated by any of the exciting causes hereafter to be named or even from a succession and alternate accumulation of slighter causes included in the phrase Neglect of Health.

Those who have exposed themselves to an attack of syphils may not experience any inconvenience, or experience any symptoms of it, yet their offspring may not be so fortunate but suffer the effects of causes over which they had no control.
The time of life subject to Phthisis Langyean is from infancy to the age of 20 years upwards.

Exciting Causes
Such being understood as the pathogenesis of Phthisic Langyean, it is clear that none of the exciting causes can induce the disease without first giving rise to this virus in the system, or without acting on a constitution previously infected by it.

The exciting causes of Phthisic Langyean are for the most part the same as those inducing Phthisis Pulmonalis & ordinary catarhal Langyean. They may be constitutional or local in their operation. Of the former, long continued exposure to wet, cold and moisture, in the night-time are almost invariable in causing inflammations and promoting the development of scrofulous diseases. At all events these are by far the most common.

Hence we find scrofulous enlargement of the lymphatic glands to occur more frequently in the neck than in the groin or axilla which last are generally defended by warmer clothing. Stoolion and unwholesome diet often coincide with the above causes.

Of the latter, acid fumes may by being applied for any length of time induce it. It may also be caused by irritation of foreign bodies lodged in the Langyean or in the vicinity of teeth, glands and ulcers.

The disease will be modified as indeed all diseases are by the previous habits, pursuits and condition of life of the patient. If he have been addicted to the intemperate use of intoxicating liquors the prognosis will be unfavorable.
of the weakening effects of such habits on the stomach and other organs of digestion.

If the causes producing or preventing recovery will likewise be found in cases where the health had been impaired by working at any of those confining indoor trades so prolific in giving rise to rheumatic diseases, but in disease more frequently than sepsis. Those employed in spinning mills, weavers, frame-winders, plasterers and those who dwell in houses before the walls are thoroughly dried are liable to the disease. The last from exposure to the chilling influence of the cold damp atmosphere of their rooms.

If the patient have lived in poverty as is generally the case with those who suffer from the disease, the amounts of that conservative principle in the body named by Cullen, the secret medicative nature, that would be necessary to sustain its effects on the constitution or to repair the injuries the lungs had received would be wanting. If not wholly ablished the recovery would be slower than if he had lived above the wants of the necessaries of life.

Dr. Todd has seen the disease arise from an abscess in the vicinity of the lungs and he believes it is an occasional sequela of typhoid fever, and in some subjects with any proneness to disease of the lungs such a sequela might be expected.

Some of these causes are more productive of laryngeal ulceration than others. of the irritating fluids. That is to say some of them occasion a degeneration quicker and in greater extent than others.

Perhaps that which will as a general rule be found most prolific is the habitual use of spirits or the abuse of other alcoholic liquors.

In consideration of this view it appears more than probable that
Any conclusion as to the comparative evidence of these affections would vary according to circumstances - what is wished to be understood is that when the symptoms of phthisis are urgent the pulmonary symptoms, if they exist, may be overlaid by one unacquainted with the true nature of the complaint.
this degeneration of the blood originates in the alveoli of the lungs, which we know to be the materials from which phthisis elaborates and the tisues forms.

Diagnosis.

This is one of those diseases in which the physician cannot in every case of it know the symptoms by interrogating the patient. He may be already mute from its effects. He must therefore rely on his own observations and taste as the best guides to his judgment of the nature of the malady.

Numerous ulceration of the larynx is usually complicated with phthisis pulmonalis. It does not appear to be a consequence of that disease to arise simultaneously with it, the one affection as it were pursuing counter to the other, each to be aggravated according to the original weakness of the first; sometimes it follows the formation of a somnus in the lungs, in which cases some have conceived it to arise from contacts with the prominent of the larynx.

In either case we might be led into the mistake of regarding the laryngeal affection as the worse disease and deserving of most skill because it has the more prominent symptoms of the two, overlooking the other though even more inveterate on account of being masked by its more painful and distressing attendant.

This says that in his experience upwards of one-fourth part of the cases of phthisis pulmonalis were complicated with ulceration of the larynx, the latter being the consecutive affection. With such a complication recovery is very rare.

Sometimes the disease involves the trachea, indeed it may be
said that in the most severe cases of it the tonsil seldom escapes from
the ulceration spreading.
It is hardly likely that the tonsil could become a primary seat of
ulceration, at the same time it seems not altogether improbable
that such an affection might exist.
Its diagnosis could be determined by the aid of the larynx, laryngoscopic,
and punctual method, above, cough and emaciation, which with the
use of the stethoscope, and the time of the voice would be sufficient to
distinguish it from the same affection when in the larynx.
Such a disease would be as fatal and scarcely less destructive than
phthisis laryngeal in its more advanced stage.
More rarely the pharynx, larynx, and lungs are affected with the
ulceration causing difficulty in swallowing: indeed all the surrounding
parts may become generally and successively affected but the primary and
principal seat of the affection is in the larynx.
Neither do these neighbouring affections nor others more distant appear
to have any antagonistic power in modifying the main one of the larynx
of creating a renovation from that important organ which advantage
such a compensating influence has been observed to arise in cases of
Cyananche catarrhalis larynii is alluded to by Celsius, who says speaking of
that disease atque introdum natura quique adjunt, ut de angusto
sedes intumescat in laryngem: utque rubro et tumore suae proculias
ita sine lecta fases liberatur.

The reducible and inflammatory affection of the faucial faucial and pharynx
of the larynx must not be confounded with strumous ulceration of the larynx
for the slightest ulceration may in these cases take place in that organ with
the absence of the symptoms of the strumous form of it constitutes the
means by which we may distinguish the disease. Pneumonia laryngis may be mistaken for syphilitic chronic laryngitis with in the acute stage. The latter affection however comes on in a person otherwise in excellent health and of sound constitution, while in the former the patient will generally show symptoms of incipient or of active tuberculosis. The previous history will at least reveal the existence of the infamous disease of which a prominent symptom will most probably have been tuberculous chronic inflammation or abscesses in the lymphatic glands of the neck or elsewhere and these abscesses have existed for years. These symptoms remain plain for a number of years which is a circumstance which will aid in forming a correct diagnosis. 

Primary chronic laryngitis is not attended with the same dejection in the vital forces as is observed in phthisis laryngis. The inflammatory symptoms are usually more severe and the pain is not so well tolerated; there is much less constitutional disturbance and other organs of the body remain unimpaired in their functions consequent not malignant and far more amenable to treatment.

Syphilitic laryngitis is etiologically speaking a phthisis laryngis, but the history of the case, together with the character of the concurrent symptoms being always attended by one or more secondary symptoms in other parts of the body, together with the action of remedies on the disease are points that will enable us to recognize its true pathology.

In cases where phthisis laryngis occurs as a primary affection, and also the symptoms are more acute those of the pulmonary complication it will be necessary to treat them alone, and we may be assured that whatever plan of treatment succeeds in affording relief to the larynx disease will as a rule benefit the pulmonary also.
Taken collectively
Genealogy.

The following symptoms may be considered pathognomonic of lobar dyspnoea, whether commencing in the membranes lining the larynx or in the cartilages themselves, namely: pain in the larynx, hoarseness, cough, dyspnoea, dysphagia, hiccup, hiccup, oppression, cyanosis, emaciation, & frequent pulse.

The symptoms vary according to the extent and seat of the disease. The duration of the disease is likewise modified more if the inflammation be mild and bears some relation also to the seat of the les.

In one class of cases where the disease commences in the follicles of the larynx, it creeps on imperceptibly beginning with hoarseness, slight cough with scanty expectation. Then suddenly the inflammation spreads, the symptoms are aggravated, there is urgent dyspnoea and great general distress, and the patient dies, gasping for breath, the disease having lasted from a period varying from 2 to 6 weeks.

In other cases the elevation follows carry's and ossification of the cartilages which occur as one of the degenerative processes incident to old age. The symptoms of this form of the disease are the same with those of advanced stages of the next to be described. This form of the disease may last in a very chronic character 8 last for years. The most common form of it occurs in youth or middle life. It is then marked by its insidious accession, and begins with a dry throat cough which often comes in fits. At the same time slight pain is felt in the region of the larynx and very soon the voice becomes affected being husky or breathless in health. With these is increasing hoarseness and emaciation. Partly owing to the constitutional disturbance
In the next stage, the patient becomes weaker, the voice becomes hoarse, sometimes squeaking or husky, the respiration is embarrassed, there is more fever, painful urination and the pulse is quicker. This stage is often accompanied by symptoms of fever and the rapidity of the pulse may be attributed to a great measure to the constant agitation. Dysphonia becomes painful and difficult.

This stage does not last long before symptoms of hectic fever appear, and the cheeks become flushed and hot. The day begins to be filled with circumstances of death in the evening. The patient feels chilly at times and at night he is as cold as ice, especially from the arms, hands, and upper parts of the body. This symptom is a voluntary effort of nature to relieve the system of the essence of the disease, and proves by the abatement of fever not altogether ineffectual, at the same time it points out the severity of the disease and deeply the constitution is sympathizing with it.

In females this effect will further appear in the suppression of the menses.

And now further alterations in the tone of the voice may be observed. After being squeaking it sometimes suddenly sinks to a grave and low tone falling to a whisper it is lost entirely lost.

Variations in the voice may usually be noticed more in the evening. The voice is affected by 2 different causes. Firstly by local lesions
Secondly by the sympathetic affection of the laryngeal muscles, this constitutional derangement. So that we cannot estimate the extent of the pathologic changes by the tone of the voice.

But should the voice remain absent for a week we may conclude, judging from the symptoms of the disease that either the vocal chords are irreparably injured or the muscles or cartilages connected with them are or less disorganized.

The cough becomes more severe, but is looser and the spits are thickened hourly and more abundantly, are more offensive and often streaked with blood.

In those also have abandoned themselves to the habit intemperance and of spirits there is likewise an expectoration of a glairy, frothy fluid held as this is generally attended with mauve and yet its source may be referred to the stomach.

The cough may be so severe as to excite a degree of congestion in the central parts and headache therefrom.

When purulent expectoration takes place along with much pain or distress on coughing or with dyspnoea or greater looseness, general alleviation of the larynx may be inferred to have taken place and as it proceeds dead or ossified portions of the arytenoid cricoi or thyroid cartilages may be eroded up. Nor early the case pieces fall into the trachea or bronchi producing irritation there.

The pain is now constant and increased by coughing, taken by attempts to articulate and by pressure on the sternum adams. That may be felt distended.

While hectic is about. Expecting three of the stomach other functions suffer little. The tongue is generally found sometimes glazed, sometimes hollow or there is

Copland.
...after diarrhoea. From the depressed condition of the vital powers attending the disease, the patient makes little complaint or shows any inconvenience, usually his conduct being marked by a degree of indifference, and little advantage in a moral point of view, inasmuch as he is enabled to endure the more distempering effects of the disease. In accepting in cases of cerebral disease, mobility of temper which is easily created is rather a favourable symptom than otherwise.

Defaecation at length is rendered very painful and whatever is swallowed enters the surface of the lungs made by the cachexia. So that swallowing for swallows becomes impossible.

By degrees the vital powers yield and the patient having suffered for a period, varying from several weeks to many months gradually sinks from exhaustion caused by the excessive irritation, or suddenly from aphasia induced by the formation of abscesses in the lungs or by effusion in the lungs or pleura.

The last form of the disease to be noticed is where it commences in the cartilages and its consequent on ossification and caries of them—the ossification not being a natural process but consequent on long continued irritation of the lungs. The first stages are often exceedingly chronic, but the general symptoms are the same with those just detailed.

It occurs in many persons, from the age of puberty to middle age. Pernicious or of neglect, in those of intemperate habits is marked besides by tenderness in the hepatic region and fulness of the colon and there is expectoration of bloody mucus. It is said that in such the disease is attended with a sense of exhaustion, a depression of mind, a fear of death, and a consciousness of the disease being self-produced which is most painful to witness.
The varieties of Phthisis laryngis therefore essentially are two - the first where it commences in the mucous membrane and the other in the cartilages of the larynx.

The above account includes the symptoms of the disease as it occurs in natural cases unaffected by remedies, but in more favourable cases where the ulceration is arrested the diseased surfaces will unite healthy lymph and heal and even in the most advanced stage of the complaint recovery may and then takes place even after the elimination of accreted portion of ossified cartilage leaving deformity of the larynx and perhaps aphonia. This probably happens only in cases where the matter has been able to discharge itself freely and where the perichondrium has not entirely sloughed away. According to the author just quoted the ossification takes place as a reparative process, those but only where the perichondrium remains the long portion being substitutes for the cartilage the regeneration of which never takes place.

Postfard Appearances.

There can be no doubt that Phthisis may exist as a trouble some disease without deposition of serpulous matter or tubercle but in the ulceration consequent upon continuous inflammation there is always deposition of tubercular matter. This peculiar inflammation is very liable to attack glands and cartilage, consequently in Phthisis laryngis the glandular structure of the larynx and the cartilage are the primary seats of lesion. After death in the inflammatory and recent stage of the disease but little ulceration will be found and that confined to a few small points in the mucous membrane lining the larynx. In such cases death has resulted from effusion of lymph or serum into the glottis.

Sometimes the membranes of the larynx presents numerous irregular ulcers
accompanied by spots of white opaque deposit which assumed the form of small prismatic granules not larger than somatoline grains. In other cases the larynx has been found more or less disorganised and disturbed by ulceration of a most destructive kind, which has destroyed the chords vocales and muscles engaged in producing the voice, as well as the ligaments connecting the cartilages to each other, and the cartilage themselves including the epithelium do not escape destruction, atrophy or complete destruction.

Sometimes in addition to extensive ulceration an abscess is formed in the situation of one of the cartilages generally of the back posterior part of the cricoïd and the neighboring external parts are swollen, or several tortuous abscesses may be found. **

The ulceration of cartilage is peculiar for it is extravascular. According to Dr. Redfern the cartilage in this process becomes first enlarged, the cells become crowded with corpuscles and at last burst and discharge their contents on the surface whilst the intercellular substance splits into bands and fibres—a remarkable tendency known only in its diseased state. The transformed hyaline substance together with the discharged corpuscles forms in some cases a fibro-nucleated membrane on the surface of the cartilage. The cells may also undergo fatty degeneration.

In some cases as in those complicated with pulmonary tuberculosis and where there has been much tuberculous deposit the cartilages become ossified and necrosis of these takes place. This is a common lesion in this disease.

Ossification of the cartilages of the larynx excepting the thyroïd usually and naturally takes place after the middle period of life, but in the

+ Gardiner  ** Todd
growing the protracted irritations of this disease is peculiarly liable to occasion it.

In this kind of ossification the bony deposit comes from the vessels of the perichondrium at first but as soon as bone begins to appear vascular canals also are formed in the substance of the cartilage. Although called an ossification the part does not become organized like true bone and therefore the term calcification as used by some is more appropriate than ossification, as applied to this process.

Whatever part of the body may have been affected with tuberculosis it will be found that in persons arrived at the age of puberty the lungs rarely escape being affected in a similar way. Tubers of the lung in its various stages that commonly degenerated and softened are very often found on section after death, both from this disease.

Tubercular deposits are very liable too occur also in other parts besides the organs of respiration and with which there is no immediate union with the lungs. Thus they are often found in the bronchial glands and in those who have died much emaciated in the mesenteric glands suggesting the flux of chyle from them. Cases of this kind will serve to explain that wasting condition of those patients who notwithstanding they live upon full diet and have neither diarrhea nor albuminous urine, yet daily lose strength and weight. The deposit may be so general in these glands as to obstruct the passage of the chyle in which case the patient will die out of the laryngeal disease but of tubers mesenterica.
Added to these appearances there may be deposits of a similar kind on the serosa of the intestines, especially of the duodenum, and in these the same effects from disorganization of an obstructed character ulceration will be found to have taken place in them.

The liver is very liable to undergo fatty degeneration in the tubercular diathesis and more so in it than in any other diathesis. It may be found of twice its natural bulk from this cause.

Some have considered it as owing to a rapid absorption of fat from these facts alone it had been naturally expected and the general emaciation being in proportion to the hepatic affection would seem to support that explanation of it.

Treatment

It is now determined by the general consent of physicians that tuberculosis in whatever part it may appear is incurable by any medicine that might have any specific or direct action upon it, but sometimes curable by remedies which restore a healthy tone to the blood and system at large, and in this way cure the disease, because it is on a deviation of a special kind from the healthy tone on which all the mischief primarily depends.

The analogy which tuberculosi lungaeae bears to Putridis pulmonum and the great mortality attending the latter would not lead us to be surprised as to the discovery of any radical means of cure in the former disease, for experience has demonstrated that both are equally amenable. So often no method of treatment is capable of doing more than somewhat palliating the symptoms.

Putridi's lungaeae is properly speaking an increasing disease in many respects rather than a chronic one. Much of the success in treatment
"In cases where its application has been long continued it is not improbable that its local action may have been accompanied with an alteration on the constitution by means of its absorption."
Hence we shall depend on early application of remedial measures. But before considering what these may be it is necessary to bear in mind that the principles of treatment consist in fulfilling the following indications. Namely, to reduce the inflammatory action in the first stage and to promote the healing of ulcers if suppuration have taken place.

With a view to the first of these if the inflammation be slight or incipient, the topical application of the nitrate of silver in solution may remove it. This remedy as recommended by Sir Charles Bell consists in pressing the contents of a sponge dipped in a solution of the salt and firmly attached to the end of a catheter wire against the posterior wall of the pharynx. More recently however Dr. Macgregor has introduced the practice of applying the nitrate more effectually by introducing the sponge directly into the chink of the gullet. For this purpose a solution of a grain or two of the salt should be used at first. In order to effect its introduction into the larynx the tongue of the patient should be pressed downwards and forwards the head thrown backwards and the sponge introduced, at the moment of inspiration, from the side of the mouth. A solution of the crystallized nitrate should be used the fumed nitrate being often adulterated. A powerful remedy is the salt as a local application in inflammation of mucous membranes that in recent cases it may be the only remedy required. It acts by setting up a slight inflammation which by a species of reaction supersedes that of the disease. It has been found that a solution of Sulphate of Copper in the same proportions has a very similar effect.
If this means proves insufficient to remove the complaint or the inflammation becomes severe, two or three leeches should be applied to the region of the tongue, after which, small bleats of moisture should be applied to each side of it, and repeated as occasion may demand. The bleats in this situation are sometimes very painful, but it may be generally observed, that in proportion to the severity of pain which they occasion, will be the relief to the inflammation. At the same time, small doses of calomel may be given once a twice and gentle lavations of the bowels are advised.

If the symptoms prove still more urgent, the case must be treated as one of laryngeal or tracheal inflammation, and one grain of corrosive sublimate with a drop or two of nitric acid, and dissolved in a few ounces of distilled water, should then be administered. Salivation will come in the course of twenty-four hours, but its first effect is shown in the return of voice. An attack of this kind, if previous to the chronic form of the inflammation, during which the sympathetic fever which is apt to arise will be much mitigated by small doses of nitre with cream of tartar given in compound powder of natron. They appear to answer the aid in view by their action as refrigerants and astringents.

In whatever stage the disease may be, it will be necessary for the patient to conform to a prescribed regimen. He must abstain from the use of alcoholic liquors as a beverage and even cold water is not relished. Lemonade may be allowed or various medicated drinks such as barley water, mixture of Quinine and spirit, mixture of viscous alcohol and quinine which are all well adapted by their diuretic action to relieve the debauches and cough. Whilst the inflammation is severe he should not
take animal food. Then under the above treatment the inflammatory symptoms shall have been subdued, these anti-inflammatory measures must be omitted to be resumed if the inflammation return. The treatment may effect a cure. The inflammation terminating in suppuration and the slight ulceration quickly healing by cicatrization. When extensive ulceration has taken place some of the remedies employed in the first indication would now and then be necessary even here. And in particular recourse must be had to counterirritation by ordinary blisters. If there be any contraindication against the use of mercurochrome, in this way then strong tincture ammonica must be applied to the foot, throat or solid mixture of sal volatile be rubbed on the part after which a poultice may be applied. Othen counterirritants of much efficiency will also be found in turpentine, castor oil, mineral acids properly diluted. Swabbing the lungs with the solution of nitrate of silver should also be resorted to as a means of fulfilling the second indication provided the ulceration be not advanced too far.

The external remedies to be employed in the more advanced stages consist of tonics, expectorants, sedatives and demulcents. Perhaps antiseptic ointments of the anti-acid class applicable in phthisic lungs may be mentioned Benzoe Acid, the Balsam or Canada turpentine administered in the form of pills or mixture triturate with mustard. They act by their stimulant action on the membrane of the air passages a sanative process in the ulcerated lung as appears by the improved tone, appearance of the sputum and relief to the cough.

Of the same class of stimulating expectorants may be mentioned Gallium
This is the cod oil liver oil.
Ammoniacum and other gum-resins obtained from embelliaceous plants all having similar properties which differ from each other more in degree than kind. If they prove to stimulating mildly expectorants should be used such as aqua eucamphica. Compound mixture of camphor - extracts of hemlock or hemlock lactureum. If diarrhea is urgent opium will be required to check them addition to some absorbent as chalk finely triturated or other astringent. If this symptom be absent and the night sweats are a troublesome symptom cold water sweetened and acidulated with Salicylic acid will form a pleasant drink which will check them, and abate thirst. But these remedies are only palliative and can hardly affect a case alone. And medicines having a general tonic effect are those which are most to be relied on as affording permanent relief. If this kind are all the lighter preparations of bitters such as the official pots and leaves of the family of fentulaceae plants, the Peruvian bark, cajuputia, Iceland bitches which is also demulcent and nutritious, Columbia root, and the milder Chalybeate preparations as the compound steel mixture, or the Sacidervine carbonate of Iron. But there is a medicine of a totally different nature from any of these more familiar to me as a remedy in phthisis pulmonalis and chronic pneumonia which is likewise very applicable in phthisis Langycer. Before commencing with a course of this medicine it will often be necessary to commence precede it with one of the better tonics because the patients stomach is so generally from weak in this.
disease; and if the hyperemia be attended with acidity or heat, a little carbonate of potash or soda may be combined with them. Small doses of it should be taken at first, after meals, with those simple incantations it generally agrees with, the patient also finding benefit from it soon taking it without the least disgust. If however the patient still objects to it, or when it disagrees it may be taken in lemonade or some aromatic water. It not only acts as a tonic but as a demulcent soothing the irritation of the large. It is not improbable that its principal effect would appear in diminishing inordinate secretion and promoting a healthy one in the large. It never causes febrile action as some other tonic remedies are apt to do and it may be taken for any length of time. The dose need not exceed two or three ounces in the day.

Bathing with warm salted water has been named as a remedy, highly likely to prove beneficial as an adjunct to this more active.

The inhalation of iodine vapor or chlorine by means of the apparatus constructed for the purpose has been highly recommended in phthisis pulmonalis and other diseases and if it could be gradually inhaled in a diluted state would be of use in the treatment of phthisis pulmonalis provided no great irritation followed its use.

In fulfilling the indications in view in the ulcerative stage the patient must not abstain from animal food but the quantity must be regulated so as to make his diet rather nourishing than stimulating to which regulation warm clothing must be added.

In regard to surgical interference it is justifiable seeing the malignancy of the disease when the patient is threatened with
Inspiration and all medical means are useless. This will be especially called for when there is a tendency to effusion in the phlegm. Individuals in whom the disease has excised such cavities as to render the larynx totally unfit to perform its functions have survived many years with an artificial opening in the trachea. Tracheotomy should be performed in preference to laryngotomy, and care should be taken that the operation be not performed too late. Mr. Charles Bell performed it early in the disease as he considered the parts would be relieved from motion and much irritation and rest proceed, but he admits that in his experience the relief was generally only temporary.

I am unwilling to conclude without observing that of all the diseases of the larynx which the physician may be called to treat, this is one in which whilst he may show much professional skill in relieving his unsuccessful attempts to treat will often prove but to show that happy consequence is to be beyond his present power. Even admission will not daunt him nor alter his faith in his sublime science, it will stimulate him to further enquiry, relying on his knowledge and experience, he will conquer with Celsius's system. Medicine fides quo multa papii frangere multa flares agros prodeat.

+Sir C. Bell+