Thesis on the Origin and Pathology of Syphilis Fever

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An inquiry into the nature and pathology of Typhus, a disease of such frequent occurrence, so destructive, and which has of late been raging epidemically in many of our large towns, needs no preface to render it an interest, or the belief of its being of the highest importance.

Difficulties have attended the subject from the unstable character of the affection — for it is ever varying in its forms, and presents itself under different manifestations in different countries and districts and in different epidemics, and is greatly modified by a multitude of causes relating either to the circumstances attending its attack, or the subject of it: hence have arisen the numerous names which it bears — besides those of a general application, as Ziegfathic, Contumax, Typhus Fever, we have the terms Malignant, low, nervous, spotted, a petechial Fever, Brain, Gastric, Bilious, hospital, jail, camp fever, and others, to which may be added those of Dysentery and Infection Typhoïde, as being chiefly in use among the French Pathologists. These fevers, and other deviations from the more common forms, have such broad features of resemblance, as to declare the disease under all to be one and the same, and of its modification a rational explanation can for the most part be afforded. — I believe it to be an affection distinct and specific, always preserving under an extensive diversity in respect to phenomena, not easily
the obvious marks of its identity. I shall call it Typhus, or simply Fever—need not enter into an account of the ordinary course and progress of the symptoms—these will appear more fully and comprehensively as I proceed. I shall content myself for the present, with observing, that whatever may be its proximate cause (a matter for consideration hereafter) it is marked by a first stage of depression, and frustration of vital power succeeded by reaction more or less established and continued, during which there is manifested a disarrangement of every function, an affection, in short, of the whole organization, solids & fluids. It is almost invariably attended by inflammation, attaching more especially to particular structures, other organs, but not with the same frequency, being more or less deeply involved. It exhibits a natural tendency to continue but for a limited time, and to terminate itself spontaneously—on its resolution the different functions and appetites that had been suspended, return gradually to their normal condition; the capillaries eliminate abundantly excrementitious matters, some of the secretions and excretions occasionally becoming excipient, more rarely a hemorrhage taking place from a mucous surface—.

The ancient theories in regard to this disease, more numerous than any other, have been fanciful, vague, and groundless, and exist now only in the history of Medicine. The Modern theories (as numerous appear also inadequate to explain the phenomena) are not based on facts, those that are the most pretended to be so, resting in attempts to resolve it into one of the local inflammations occurring during its course.
and leading to a denial altogether of its existence as a primary disease—In order to throw the state of the question in regard to the prevailing doctrines of the present day, to give the most important facts connected with its pathology, and to see how far distention has revealed its nature to us, I shall enter at once upon the appearances the different organs and structures present after death, and endeavour to trace the relation they bear to the symptoms, to the general disease.

The first that demands our attention, as being the most constant, is the result of the well-known affection of the Intestinal Canal. In its more characteristic form, it consists of an inflammation soon passing into ulceration of the aggregate glands situated chiefly at the lower portions of the bladder. At the earliest period, the glands, in their elliptical or long-crenated form, appear more developed, and are then seen more readily and distinctly than in the ordinary condition—when held between the eye and the light, a minute capillary injection is seen confined to them generally deepest at their circumference—then, too, it is often seen. They soon become raised upon the surface of the intestine—ulceration then commences on the most prominent points, extends irregularly, exposing the muscular and afterwards the serous coats, by penetrating which also it may destroy the patient suddenly. It may present the character of stony and gangrene, or as convalescence occurs, may take on a separation action, and leave ulcers. When the solitary glands are the chief seat of the affection, they undergo similar changes of injection, intensecence, elevation, ulceration, stony, often we see...
minute follicles in great number injected and slightly raised. The enlargement of both varieties of glands frequently occurs; in many cases the mucous membrane in their neighborhood, or independently of them becomes reddened, softened, and ulcerated. The ulcers from whatever source, often communicate one with the other and involve a considerable extent of the intestine in the same action. These changes occur by far the most frequently near the ileocecal valve, and diminish as we proceed upwards; they are generally attended by an enlargement and softening of the corresponding mesenteric glands.

This affection has received the name of fishy enteritis, from Bouillaud, and, as attended by an affection more or less decided of the general digestive surface, that of faeco-enteritis by Broussais, and has been declared to be the seat of the disease. Bouillaud, an able disciple of Broussais's school, carries to the farthest extent this doctrine of typhus being a simple phlegmatisation; he affirms that it has no determinate course to run, that it stops it by depletion, and that it arises in its worst form from a neglected enteritis.

Lюи considers the lesion in question to be its essential anatomical character—making it pathognomonic—he allows typhus to exist where it is present, but denies it where it is not found, though the symptoms may have been the same, thus he has given a number of cases under the title of affection typhoïde simulée, some of which it is clear were genuine examples of the disease—for it is by good a doubt that cases do occur in which not the slightest en-
Also look at, Chomel's Lein. Clinique reviewed, in a late number of the Edinburgh Journal.
The growth of the glands is found, and any injection of the membrane.

I have the respectable testimony of Thomes in regard to this,
whom, my friend Dr. Ridge, heard declare in his Clinique, that he was compelled to disent from toxis, as he had witnessed the most unequivocal cases, without the affection of the Bowels, and they are to be met with in Authors. When it is present, it bears not to the general disease the relation that should exist between cause and effect, being slight, where this is intense, and vice versa. It differs slow in the frequency of its occurrence and in its severity in different places, and in different Epidemics. From my own observation, and from what we must presume from the French Writers, I believe there is a much greater tendency to it in Paris than in London. Again it continues sometimes after the subsidence of the primary fever.

Thomae observed many cases of this kind, and one in particular was admitted into the Clinical Ward of Guy's Hospital, during my apprenticeship there, in which ulceration of the Bladder remained extensive and ultimately perforated the Bowel in 2 or 3 spots, and was attended, not with the characteristic symptoms of Typhus, which had all disappeared, but with hectic on a patient under these circumstances may linger an incredible length of time. Emaciation from the previous disease, and the diarrhoea, increasing to an extreme degree. But the acknowledged frequency of such a superficial inflammation accompanying Typhus, leads us to an opinion more worthy of consideration, which attaches it with the Exanthemata, and as it
receives additional importance from the condition of the skin, I shall here state the phenomena that are observed in respect to it.

Notices exist in some of the older writers of an Eruption on the surface in Fever, independently of Petechiae or true Ecchymoses; but it has been only in recent times that much attention has been paid to it, so that correct observation has been made. It varies in appearance, and very much in constancy — occurs in some districts and seasons, and not in others, — presents itself more invariably when the disease exists in particular Epidemic forms; as was the case in many of our large towns, during the last summer and winter, when it was to be seen in almost every instance; it then became a striking, and despairing symptom, and seemed to obey the laws that belong to the cutaneous affection of the true Eczemata. Its characters are not fixed. In the most marked form there is an injection of the surface of the Eczema, of a tolerably vivid and interrupted in spots, bearing in short a close resemblance to that of Measles. Chiefly occurring on the trunk, sometimes on the extremities, and even on the face, appearing from the 5th to the 8th day, and soon fading, - in some cases from the commencement, I have observed it slightly intubated, developing, presenting an internal motting of the skin, as is seen in the decline of Tubercles. Another form is the minute specks or spots closely approaching each other, of a light yellow color, often of a dusty hue, looking very much like splinters, but disappearing under pressure. These differ, again, from the scattered
rose-red circular spots, or papules, which Louis has attached to so particularly, and to which he attaches considerable importance, as regards to diagnosis—they are seldom seen but on the neck, chest, and abdomen; when my friend Dr. Ridge was in Paris, Louis pointed out these in almost every case; they were generally very few in number and often at great distances. I have not observed that they occur to frequently in London and Edinburgh. Another phenomenon considered to some degree characteristic by the same pathologist, is the appearance of blisters or of very numerous minute vesicles, perfectly clear, transparent, easily dissolving under a slight touch, being chiefly on the neck, chest, and foot. I have seen them on the extremities where the skin has acted most, also in other parts; the same importance is not however attached to these by those who affirm it to be only the common smallpox eruption which appears after profuse sweating, and that it is not peculiarly remarkable in Typhus.

The opinion advanced to, regards the typical affections we have described as an integral part of the disease, as bearing the same relation to it as the rash upon the skin, and the inflammation of the fasciae in Scarletina, or the particles of small pox, as to the fever that precedes and attends them.

This analogy is obvious, and is borne out by the observations. It is certainly a step in advance to be able to recognize the alliance of diseases, as it supposes a more accurate knowledge of them, the ultimate object being to appreciate fully and exactly the phenomena of each individual.

As viewing points of resemblance and distinction, between the disease we are inquiring into and the Exanthematous, I would observe that,
The origin of the fever in most cases at least is from contagion, a fact
that is absolute with regard to the latter class in all cases.

In the former, there is a disposition not to be renewed, but it does stay
often than once, and particularly to under frost. Epidemias visitations. I
know an ancient physician who has been seized by it 6 times.

Similar facts must now be allowed of the others, though in these the
tendency not to recur, and especially after a 2nd attack is very much greater.

The former is confined to the first portion of life, to the period between
childhood and 50 (as an approximation to the truth), but prevailing most
at the intermediate ages, the latter are still more confined to a younger age.

In the one affection, and the other set, the fever is primary and essential,
independent of inflammatory action.

The local affections of Typhus present not the same uniformity, nor the
regularity as to the period of occurrence, nor as to their course, that may
be affirmed of the inflammations of the skin, and other organs especially
involved in the Exanthematice. There are general resemblances as to
the complications occurring in all, whilst there are peculiarities as to each.

They are met with after a similar manner in different types; Typhus
varying the most. They rage Epidemically; they have a determinate course
to bear; in the one, this cannot be arrested except in the earliest stage;
in the others it cannot probably be stopt at any; they agree therefore as
to the limited benefit to be derived from art, and in the principles of
 treatment that are to be applied to them; lastly, many of the sequels
of their attacks are the same or very similar.
Typhus agrees in its Pathology with some forms of Dysentery and with the
Plague. There is a great analogy as to the anatomy and function between the
Insult and other glands situated lower down the alimentary passage, and
it is clear that the former are attacked by a specific affection accompanying
an independent constitutional condition sometimes assuming the word
Typhoid type, as seen particularly in the angina maligna, and the acute
pain of the pharynx, the gaseousness of the throat, and
patients have died rapidly of the severe constitutional, when there has
been very little local affection, and these diseases occurred in Epidemics.
The Plague had its general condition of system, the most suddenly by
Typhoid, and its typical affections, its subcutaneous glandular and lar-
cellular swellings, and they varied in their relation to the one to the other.

At a charite, my friend M. Mercer, witnessed the inspection of a
case, which bore the worst characters attributed to this disease. It occurred
in a young woman who died soon after her admission into the hospital
from the extreme prostration. In the groins the glands were greatly swollen
and the cellular tissue was extensively destroyed to some distance
beyond them — in the interior of the body were the most marked results
of the deepest affection the capillary system and the blood, the liver
and spleen were enormously inflated and softened, the former was
quite in a atonic condition. The stomach was studded with
large and dark edrophymose beneath its villous coat, and similar
extravasations were seen along the whole of the intestinal canal.
The kidneys were about 3 times their normal size, very flabby, Edrophymose

...
on their surface, and in their substance, and the Pelvis in each case in a strong
dying state — the particulars of this case were taken with great care by Royce.

though I believe that the local affections of phthisis which I have described
as those of the other diseased parts with which we have been comparing it, occur
specifically, yet as it is the aim of a scientific pathology to search into the
causes of events, I shall endeavour to see how far an explanation of them
may be found in the phenomena of the fibrile state itself, on which I shall say more.

The depression of vital power more or less sudden, and the diminished action
of the most important organs induced primarily by the exciting cause, are attended
in all cases of arrest to a greater degree of all the secretions and excretions, thus in the first
stage the urine is found deficient in excrementitious matter, the secretion of
foul from the surface of ulcers is suspended, and the granulations are dried up.

When reaction begins to take place, and the skin becomes hot and dry, thirst is
complained of, the lips are parched, the tongue becomes brown, then follows
the evidences of depraved secretion in the glutinous adhesive matter, covering
the latter, and on the borders upon the teeth, in now this state of the skin are
particularly of the tongue, and mucous membrane of the mouth, a part of the
digestive surface, and the acknowledged index to its condition, leads to the pre-
sumption that similar circumstances hold of the greater portion of its extent
and especially of that occupied by the glands of Royse and Bevaner.

The dehydrated state of the capillaries, their disposition to take an inflame
action, and the form of that action are evident from the characteristic early occu-
rence of ulcerations over the lacrimal, and lacrimal, and from the stench of their
foul surface — that morbid matter pours it into the cancer under these
I know that it is doubtful whether the intestinal canal be deprived of the mucus secreted during health, the mucus is changed more viscid and more adherent, but still it is secreted, although in a diminished quantity, as is proved by dissection.
confavorable circumstances, deprived of the mucous that protects it in health, from the distension of its contents, should excite inflammation either in those portions of it where the intestinal contents become most depraved, or are retained longest in contact with the surface; or should involve its glands in what might have been expectorated as phlegm. According to these views we may find the lining membrane in other parts softened, thickened, ulcerated, or only injected, or having its submucous tissue infiltrated with serum, in a darker serous fluid. These changes occur in the stomach, oesophagus, and pharynx. Louis describes a condition of the former, which he terms "Staphyloma," which occurs in his cases not uncommonly. Dr. Cowan has seen ulcers in the stomach and effusions of blood beneath its villous coat. Hodge witnessed a case under Louis in which he affirmed, ulceration to exist in the oesophagus, as was clearly pointed out by very distressing symptoms the patient distinctly recovered, and he observed it was the third only he had known to do so. One was mentioned to me by a physician whose name I do not remember (It was Dr. Hodgkin, I think,) in which an ulcer existed in the back part of the pharynx, and afforded an interesting opportunity of observing its changes corresponding with the progress of the disease. The only remark that could be made as to the rationale of the eruption upon the skin, would relate to the analogy and sympathy between this and the gastro-enteric mucous surface, and to the fact of its being greater than in any other disease except Scarlet Fever, and often more prevalent and lasting, excepting only Scarlet Fever.

As another attempt to localize Fever has been made by Clutterbuck, ed.
would have us believe every case to be one merely of inflammation of the brain or its membranes, we will next proceed to the pathology of that organ, while suffering under it.

It may be at once remarked that inspections have proved that morbid appearances within the brain have not the frequency, nor the importance, nor bear the general relation to the disease that they have been supposed to do. As was said in respect to the stomata, there may be no lesions, they may be slight, and wholly disproportional to the severity of the disease, and they may occur at various periods of its course, and this observation applies to a much greater degree in the present instance. It may appear at first singular that though symptoms due to the cerebrum form prominent symptoms in most cases of fever, and predominate over those referable to the organs, either within the thorax or abdomen, yet an order the reverse obtains with regard to appreciable lesions, these occur to the greatest extent within the abdomen, next in the thorax, and least frequently within the brain.

This is to be explained by the facts, that the brain, beyond all other parts, and its surface especially, shows deviations from its functions from the slightest changes in its circulation and supply of blood, as well as more evident alterations, as is verified by a variety of its diseases. These alterations at all times attract attention, whereas those from other organs and arising probably from a more considerable organic change are slighter, and do not so readily excite observation. The post-mortem appearances that are met with belong to inflammation, or congestion
Thus there may be an effusion from the arachnoid covering the surface of the brain, into the cisterns, or into the ventricles;opacity and thickening of the meningeal itself; the vessels of the subarachnoid may be tinged with blood, the viscous substance may approach more or less to a coagulated state, and the meningeal matter, when sliced, may present more bloody points than natural, and either may have undergone different degrees of softening, hardening, &c. These changes occur more frequently in Dr. Southwood's cases; and cases in which other changes have occurred.

In respect to certain peculiar symptoms, such as the sudden protrusion of the tongue, and of the extremities, the spasm and twitchings, more lately and towards the termination of the disease, the subarachnoid fluid, finding its way into the bed clothes, by a control over the effluences, these affections of the muscles have led some to look for changes in the spinal cord, or its blood-vessels. They are, however, generally referred to the brain, and are met with in diseases confined to it. Such lesions as occur within the head, have, been found within the spinal column, but neither often, nor to any extent.

An important fact, bearing directly upon practice, and referable to the brain, for some points, as arising from the impaired sensibility of the structures, is the insidious latency that attends all the local inflammations. We may have the intestine extensively ulcerated, without any pain from pressure, without diarrhea, without symptoms, in short, without any of these symptoms having been present; perforation has suddenly taken place. In a case I observed at Guy's Hospital, where the complication seemed entirely cerebral, where constipation prevailed throughout the disease, and the abdomen was flaccid, the
and free from pain, the acute alterations were found in the lung. In like manner, Bronchitis, or Phrenicoma in both lungs may exist without cough, or Pain, to be detected only by the Stethoscope.

Without leaving recourse to the idea of a primary compression being made upon the heart, any more than to its inflammation, there is abundant reason in the fibrile state itself, as intimated above, why numerous symptoms should prevail that are due to it, and why traces of inflammation and congestion should sometimes be felt, from its partaking in the general derangement of the circulation, and particularly of the capillary system, from the changes in the quality of its blood, and probably of its structure, and from its sympathy with the condition of other organs, especially with that of the stomach, intestinal, lungs.

To turn to lesions within the thorax, An injection, and thickening of the Bronchial mucous coat, and an increased effusion into the tubes, are frequent of constant occurrence. I have never seen a case free from Bronchitis, being convinced it is always present, and the remark is strengthened by the testimony of the State. Phrenicoma may exist in one or both lungs and may pass on insidiously to its worst forms. These organs are generally in their lower portions, engorged with blood, or infiltrated with serum, or rendered impermeable to air, and in a state which has been called Opacification, being dark colored, and easily breaking down, or they may be in a condition still more advanced, in which a gravitation and slop of the fluids take place towards the posterior and most depending portions, the diminished force of the heart's action is insufficient, the obstruction to the circulation, and exudation, occurs under an almost complete stagnation of blood. An effusion of serous
serum is sometimes found in the pleura. The heart usually approaches to a condition, in the extreme of which it is of a livid red color, its particles flabby, wasted, and easily torn, its cavities somewhat dilated; attendant upon this altered nutrition of the heart, the lining membrane of the heart, assumes a darker hue than natural. The spleen is very commonly enlarged and softened; sometimes to a considerable extent. The liver does not undergo such changes with regard to its structure, nor is its secretion so much altered as in typhus occurring in hot climates. The kidneys are seldom much affected; they may undergo the prevailing changes of softening and enlargement. A lividity of the muscles is sometimes seen after death. With regard to the disposition of particular tissues to become affected, it is worth remarking that there is a tendency to ulceration in all the mucous membranes, for besides in those mentioned, ulcers have been seen on the epiglottis, in the larynx and trachea, and in the gall and urinary bladders, henceirma observation that in typhus they occur on the mucous surfaces in an acute, and in typhus in a chronic form.

The serous membranes with the exception of the pleuro-mediastinal seem to enjoy in some degree an exemption; for instance, in Pleurisy secondary to fever, even when it is extensive and near the surface of the lung, the pleura often is not affected, whereas in severe idiopathic pleurisy, the membrane covering covering the lung generally partakes in the inflammation. The peritoneum is rarely inflamed, except from fecal extravasation, or from perforation of the bowel without it, when the action is limited to the vicinity, and is of a purulent nature.
The inflammatory process is modified in form and character, symptoms of the
are not generally thrown out; it does not, and particularly in some parts,
become so often limited as when it occurs idiopathically by the effusion of
plastic matter, but is diffuse being attended with softening and discoloration
and in edematous forms passing early into desorganization and gangrene, cir-
cumstances that might be expected from the structures attacked having
already been in a state of congestion and diminished vitality.

An important fact as relating to the nature of fever is yet to be stated,
for that death may occur without leaving any of the lesions we have described
as in the severe cases in which no reaction takes place from the primary collapse
of the vital energies; the changes that exist are only in the intimate organization
of parts, and the vessels are filled with dark blood; so that an impression
has been produced by the poison, and a lesion has taken place secondary
in the blood sufficient to arrest the vital actions, before grosser alterations
occur; whereas in ordinary cases, changes of the same nature, but in less degree,
are produced by the exciting cause, they are those which precede and give rise
to, at least the affections of the different organs that do not bear such essen-
tial concomitants of the disease, their predisposition from climate, constitut
habit of life, and various circumstances, determining the more
particular complications.

It is a fact also, that during the course
of cases not appearing very severe death sometimes occurs suddenly, and,
mere inspections cannot reveal the cause; often the lesions that are
met with are insensible, and inadequate to explain the event when
taking place less rapidly.
Generally, however, in this country patients die from the combined effects of the condition of the system in the fever, and the inflammation and congestion of important organs interfering with their functions, a death is induced by the operation singly of one or other of the following modes, or from several being more or less combined, as for example, from the conditions we have alluded to in respect to the lungs, and aided perhaps by their compression from Effusion into the Pleuræ, and more especially from the accumulations in the Bronchial tubes—by coma or a cerebral oppression from the changes within the Cranium—by Syncope from exhausted irritability of the heart, its diminished power being unable to overcome the obstructions from congestion in the internal organs, and large vessels— or by a gradual wasting of the powers of life, from continued disease—hemorrhage, diarrhœa, &c.

With regard to the pathology of the fluids, as already intimated, they undergo earlier and greater changes than in any other disease. In what respect and to what extent they deviate from their constitution in health, Chemistry has not yet determined—Dr. Stevens states the Blood to be deficient in its serum and its salts; that the absence of the latter is the cause of its dark color, its congested, even when drawn early, is generally soft, mucous, and easily broken up— it may remain fluid in the large vessels, and cavities of the heart after death. So its change in quality and the declension of its properties are due as in Peripar, Hæmorrhagia and Scrofula, the appearance of these varieties in some forms of Eclampsia, and hemorrhages from different mucous surfaces, to these causes too, are in great measure to be referred. The effusion of Lumbar fluids into the Pleuræ, Pericardium, and parts of the Cellular tissue. Under circumstances
I am aware that some taking a different view of the nature of fever deny the similarity between Yellow Fever and Typhus.
in which the preceding causes greatly prevail, and the insomia is not diluted by fresh air, as in Camps, jails, hospitals, the filthy holes of the poor, the phenomena attested to occur more frequently in such cases. The factor of the evacuation is insusceptible, death may take place on the 2nd or 3rd day. The body passes quickly into a putrescent state, and the contagion spreads rapidly. As it occurs in tropical climates, typhus may be attended by a hemorrhage into the stomach, as in the "black vomit" by intrad Secundaries under the skin, as in "spotted fever," and according to the belief of some, by an effusion of the constituents of the blood, in certain proportions under the surface, as in cases of malignant yellow Fever."

It is evident that the depraved condition of the blood, and of the secretions bears a relation to, and in fact arises from, the depressed state of the vital energies and of the functions subservient to organic life. V. St.Binary would have us believe the exciting cause to act by vitiating the blood, and that all the other phenomena take place from its circulation through the organs: An assumption that is altogether useless — for supposing a poisonous matter to be introduced into the blood, for it cannot itself be diseased primarily, according to our present knowledge, it is probable that its effects can only be produced by its contact with nervous filaments — the experiments of ME. Morgan and T. Addison concur with many arguments to show that in the case even of poisons acting as it is said of absorption, the result depends upon their operation upon the nervous supply of the inner coat, a living membrane of the bloodvessels, a tissue highly susceptible of their actions and not upon their passing in the course of the circulation to the different organs.
In many of these, it is the disorder of the adipose tissue, which causes the mischief.
There are states of the system very similar to that under Typhus, produced by various causes, which it may be worth while here to allude to. We see them in those diseases in which the products of inflammation are thrown into the circulating mass, or in which there is an absorption partially of putrid animal matter, as Phlebitis. Inflammation of the uterine tumours after Parturition, Typhoid fever, and the effects observed in cases in which portions of the placenta have been left in the uterus, in diseases arising from contagion and in those occurring epidemically rather than those occurring sporadically; these we have before alluded to, as being often attended by a Typhoid condition.

The effects of some animal poisons, such as those received during dissection, from the inspection of patients recently dead from Phlebitis, from the venomous serpents, resemble those produced by the poison of Typhus in the lesion of Inspiration manifested, and the early requirements of support and stimulus. In surgery a group of symptoms is sometimes met with, bearing an alarming aspect, and arising from the confinement of pus, sometimes only in small quantity, in the shea of a tendon, or under a fascia. Another set occur in broken down habit and hard drinkers from a very slight cause of irritation, in such persons there is often the combination so difficult to treat of local inflammation, with constitutional symptoms of a Typhoid character. I may mention also the collapse of the system produced by the sudden shock from severe accidents, such as injuries to an extensive surface from burns, lacerations, compound fractures, and hot wounds, wounds and exposure of the larger joints, &c. Some local inflammations, as Lymphatic Tumours, enteritis, & particular forms of infla...
Adipose inflammation again assumes its influence here, as some express themselves, Somelitis supervenues.
within the head, and Pneumonia in old persons, where the apex of the lung
is involved, stimulate Typhus. The occurrence of pyogenic, and the infiltration
of urine might be attributed to also co and other local affections might be
severe mentioned, which give rise to the most constitutional irritation — as the acute
Peristitis, ending in effusion of matter between the periosteum and Bone
a more particularly inflammation of the medullary membrane, or of the
 cancellated structure of the long bones, even when the smallest quantity of pus
is produced. Such are the circumstances that have induced many, and
particularly surgeons to deny the existence of Typhus as a separate disease
sui generis, and to declare that there is no fever independent of, and not
caused by inflammation somewhere, a some local source of irritation.

We were led before to the consideration of this opinion when considering
describing the local affections, out of which the disease has been said to
arise, and have shewn the fallacy of it, and after having traced the
pathology step by step, there can now, in my judgment, remain
no doubt as to the fever being idiopathic.

Proceeding now to the consideration of the proximate cause of the
disease, as far as we are enabled, — as it is conclusive that dissection
has not yet discovered its seat, and that the marked appearances hitherto
observed are secondary to the effects of prior changes not as yet appreciable
by us (for organic alteration there must be, however slight, where there
is alteration of function), in order to attempt a determination of the
matter, it is necessary to ascertain accurately the earliest symptoms
to observable what the primary and prominent phenomenon of the
disease consist, and then apply physiology to the solution of the question.

It is thus that the seat of other affections is presumed, where morbid anatomy fails us, as is the case more or less with Tetanus, Hydrophobia, and some forms of mania, Epilepsy & Hysteria which are referred to the Brain or Spinal cord, as they are due to an alteration of their functions. And we should regard one very important means of promoting a correct and comprehensive pathology, if we did not carry out to its fullest extent our physiological knowledge, and make it throw all the light it may be able to do, upon the signs and course of disease as made known to us only by observation.

Now it is clear as we have already seen, that the earliest symptoms consist of a collapse of the vital energies, and a derangement of the actions that belong to organic life: and that this alteration in the conservative functions, constitutes that deep affect of the entire organization which forms the striking characteristic of Syphilis, and continues prominent until the resolution commences by a return of some of the healthy actions, as of secretion, excretion, 

But these functions are generally believed to be dependent upon the influence of the ganglionic system of nerves, the nervous system of organic life as it has been called, and if the opinion be correct, it is upon this that we must believe the impression to be first made, probably through the extensive net of cells of the lungs exposed to the atmosphere and to all the poisonous exhalations it may convey.

An impression upon the filaments of the cerebral spinal axis must fail altogether to explain the phenomena, as the nerves of this system
are mainly subsequent to animal life, and do not control the functions of circulation, absorption, nutrition, assimilation, those in short of the whole capillary system, which are clearly disordered under fever, the symptoms manifested by such derangement constituting those of the febrile state - a lesion must directly, but still secondarily, follow of the functions of that system on which the exciting cause is generally supposed to act - but the converse does not hold, for besides in the instance of the affections just alluded to, and other states, various cases are on record, in which from injuries or disease of the head, all kinds of sensation, locomotion, the consciousness of existence have been suspended for years whilst the circulation, respiration, nutrition, and the secretions have not been interfered with. M'Keevy Slinie by trifling the shot on a sail lead, on which he had fallen from the mast more than a year before, restored him to his animal existence which had been lost ever since, the only sign of its return being an occasional movement of the index finger, corresponding with the pulse, and this I believe when the body required nourishment. Abbeau has related a case of a boy in a similar condition in whom there was only a nodding motion of the head, he died without being returned to consciousness, and at the inspection of his body, a singular indentation of the surface of the brain was found, and a cyst in its centre. The intimate connection however that is established between the symmetrical system of nerves, and those from the ganglia, must be borne in mind.

In so far as our physiology is well founded, as to the function of the sympathetic nerve, we must refer to it for the seat of fever, and the opinion will stand or fall with that on which it is based; the fact
eventhough remaining the same as to the lesions in the organic functions being
primarily, and all important in the disease is, the effects hence arising are
fully illustrated by its history and symptoms — thus at its invasion, the
diminished energy of the circulation, of the respiration, and of the capillary
action, as this is exercised in some organs for secretion, in certain others for
excretion, in all parts for nutrition, must be attended by the development of
less animal heat, imperfect evacuation of the blood, and retention in it of all
the deleterious matters that are continually being thrown off in health in the
function of deposition is clearly interfered with, whilst there is great need
to believe, that that of absorption is increased.
From the diminished action of the heart, as shown in the pulse and some
times irregular pulse, already the balance of the circulation is lost; blood is
not heat to the surface, and is congested in the interior of the body.
The brain, with all the other organs and tissues, is involved from these
conditions, and gives evidence of it the earliest, for the reason intimated
above, by a decreased performance of its functions of mind, sensation
and voluntary power — according to the first symptoms we observe, or
that are complained of, are chilliness, languor, and a sense of fatigue
and weakness, insensitivity to exertion either of body or mind, loss of the dif-
frent appetite, uneasy feelings about the body, as dull pain in the head
and in the loins, aching pains in the limbs, and referred to the bones of.
When reaction takes place, and the respiration is quickened with the circula-
tion, there is a morbid development of animal heat, its excess is not
carried off by exhalations from the skin and pulmonary mucous membrane
Blood is again sent to the surface and the capillaries are congested; hence the
suffusion of the eyes and the flushed face, the countenance is expressive in a man-
ner that is diagnostic of distress and anxiety; the muscular power is greatly
lessened, so that the position is rather passive than active, the intellect is
more impaired, the mind wanders, as deleterious particles continue to be
carried into the blood, whilst there is deficient elimination, from that, and
from other causes, it becomes more and more deteriorated, and the secretions
are impaired, the lesions that occur specifically and the congestions and
inflammations of different organs take place; these and other results we have
already entered into fully, and it is unnecessary to retrace our steps further.

This view of the proximate cause of fever appeared to me so
obvious a few years since, that I introduced it for discussion before
the Physical Society of Guy's Hospital; and I was not aware before I had
originated the above remarks that C. Pothier had also formed the same
ideas, and had then published it in the 3rd Part of the Dictionary of Practical
Medicine, through the extensive circulation of that work the theory is
now no longer new.

It should be remarked that as yet no observations to corroborate it
have been afforded by Pathological anatomy. It is clear that it must
be extended to a number of other diseases, and particularly to those which
we have shown to be allied, and to all the forms of septic fever.
In that we must say that local inflammations, and causes arising
within the body may give rise to an irritation of the ganglionic system
and in a varied manner, as well as agents acting from without, it might
appear too speculative to enter into these views, and it is beyond my present purpose.

Such however are beginning to be general, and especially in respect to the operation of poisons &c. Boeillier, has applied this view to intermittent fever, and has proclaimed it before the publication of his book, that no one may claim the priority, or be in the field before him. He says that ague is a neurosis of the great sympathetic, &c. &c. in his "Cours de pathologie interne," at present coming out in numbers, notices the prevalence of opinions as to this system of nerves being the seat, or being connected with a variety of affections, and affirms that he has not met with suitable appearances to establish them.

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of London

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