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Graduation Thesis.

On the Types and Treatment of Continued Fever.

by.

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On the Types and Treatment of Continued Fever.

I propose in the present Thesis to make some practical remarks upon Continued Fever; more especially in reference to its several varieties or types and to its treatment. I shall endeavour to confine my remarks to those points upon which I may be able to offer the results of my personal observation rather than attempt the history of a disease now so well understood and described in the standard medical writings of the day.

When I commenced the study of Medicine 30 years ago, the doctrines taught in the Schools were deeply tinged with the principles involved in the writings and lectures of several men of eminence holding peculiar views such as Armstrong Cullenbuck and Broussais

A remarkable change has taken place since that time in the opinions and practice of medical men about the as well as many other diseases. The practice of Medicine of 1859 is very different to that of 1829. Either disease has altered

essentially in type or our methods of treatment have changed by the progress of science and the rich store of knowledge which modern physiological investigations have brought to bear upon our enquiries into its causes. The subject is one of the greatest possible interest. And although each of the above views is held by eminent men in the profession, there is I think a strong tendency to give an equal amount of influence to both and to regulate our practice and found our principles upon known facts rather than waste our energies and damage our science by theoretical disputation. Facts are the only base upon which sound principles can be established or a rational system of medicine built up.

In 1830 I was taught that the fevers so well and clearly described by Cullen as Synocha. Synochus and Typhus with its varieties Enteric and Pecairn were modifications of one disease that

known as Continued Fever. Until lately this opinion has been universally adopted and described by systematic writers in this country. The division was simple of great practical utility and I believe founded upon a true and sound basis. Within the last few years however Dr. Jones has proposed not only a new division of the types of Continued fever but has formed what nosologists is called Typhus into two distinct diseases - characterized by their own peculiar & pathognomonic symptoms and not produced by the same contagion. His division of the forms of Fever observed by him is

First. Febricula. or Ephemeral Fever

Second Relapsing fever. which Dr Christison has proved is the Typhoca or inflammatory fever of Cullen.

Third Typhoid fever. characterized by rose colored spots and inflammation of Peyers glands.

Fourth. Typhus fever characterized by more or less congestion of the brain and mulberry rash or petechiae.

× Continued from

on the Nile.

This arrangement has been recognized by Dr. Watson in his fourth edition of his work. And there can be no doubt but that W. Hunter has described accurately the forms and complications of Fever which have of late years been prevalent in London. And it may be in other large Towns. According to my own observation this arrangement is not applicable to the varieties of Continued Fever observed in the Country. During a practice of 26 years I have seen a great deal of Fever and the results of my experience I may give under the following heads.

1. The forms of fever which I have seen were all resemble to one or other of the divisions of Cullen and I never observed any type of the disease peculiarly characterized by any distinct variety of Inoculation.

2. I have known the two forms of disease described by W. Hunter as Typhoid and Typhus occur together in the same village during

the Same Epidemic

3 The appearance of Some such as petechiæ has been of rare occurrence both in my own practice and of many others whom I have consulted in the East of England.

The Opinion which I have formed from these facts is not that Dr Jenner is wrong — but that Continued Fever assumes its different types of greater or less depravity of the blood according to the locality in which the disease is observed. X

Almost all observations upon disease which come before the Medical public are made in large Towns and the result often is Sufficiently obvious. The Science of Medicine is taught in large Towns. Most of the best observers and the most Zealous and hard working Scientific men are up in Towns The Medical man in the country on the other hand rarely sees the result of his observations and Experience is lost. Many of them

Just through life without ever taking
a note — we have in fact no authentic
& real record of any extensive observation
of disease as it occurs in purely
agricultural districts — and as a
natural consequence most valuable
information about the types of various
diseases is entirely lost to science.

Varieties of Continued Fever. Cullen divided Continued fever
into Synocha. Typhus and Synochus
He defines these terms as "occurring
without intermission and not produced
by Marsh Miasma". Synocha or
Inflammatory fever he describes
"a fever with great heat; hard, full
& strong and frequent; urine red; and
but slight disturbance of the Sensorium
Typhus he introduces as a Contagious
fever, pulse small and weak, urine
little altered and Sensorium much disturbed
Synochus he described as a fever
intermediate between Typhus & Synocha

The forms of Continued Fever
which I have fallen under my own
observation have been chiefly two

Typhus and Typhoid of Cullen, with their Local and Varied Complications

And the Symptoms generally recognized by me in practice have been the following - Mostly described

Simple form of Continued Fever.

Headache more or less intense and indisposition to mental or bodily Exertion; - a sense of cold trickling or creeping down the back sometimes amounting to distinct rigor; - pain in the limbs; - diminished appetite with an accelerated and sometimes variable pulse. These Symptoms may last only a single day - they generally last a week and constitute the Ephemera or Febricula of authors. But if they do not terminate on the 7th day the latitude goes on increasing and the Headache becomes more decided, and the pain in the bones more intense; and generally more or less shivering; to this succeeds heat; - frequent pulse, thirst, White tongue, great debility Nausea oppression in Cardiac region

costive bowels and a peculiar expression of countenance. The skin is often hotter than those which go on to worse symptoms. Often the patient will appear to be going on well or even cured when he will be attacked perhaps suddenly with great depression. The pulse however is generally full but compressible; the tongue enlarged smooth covered with a white mucus and put out in a tremulous manner;- sometimes the pulse will be slow and the respiration quick. The prostration of strength differs from that consequent upon long disease and the same remark applies to the mind; the patient cannot understand what he reads; his face may appear red & when you tell him to get up in bed he will turn pale and probably fall back again. The pain in the head is great when the patient sits up; that in the back and loins is now considerable; there is greater susceptibility to cold and the functions generally become impaired. The pulse varies

from 90 to 120 and upon exertion will become laborious. These symptoms may become more severe - Stale without passing into the worst form of the disease. The tongue pale brown & dry the mouth feels clammy; bowels costive and the abdomen often by hyperæsthesia - sometimes tender.

Generally the patient recovers in from 14 to 21 days from the commencement.

2. Severe form of Continued Fever

Prostration of strength from the first extreme and excitement considerable; pulse quick & not strong; heat variable; skin sometimes probably comparatively slow; the secretion and excretions are obstructed; sense of taste nearly lost; bowels irregular sometimes costive often loose from commencement; urine scanty and high coloured; mental functions inactive; often a dry tearing sense of dryness all over the body; sleep broken

* This is quite in accordance with ~~the~~ the statutes from the Clinical chair in the University as applicable to the Faculty of Edinburgh

and disturbed; restlessness; tongue brown and dry sometimes red and glazed like raw beef. and tremulous; the patient complains of little pain except in the head; there may be pain or not in the abdomen. There are generally the symptoms of post mortem - & they both sometimes take a turn for the better on the 7th or 11th day; generally however the increase in intensity and delirium muttering or violent pain in the abdomen & exhausting diarrhoea supervenes; the lips are covered with sordes; the tongue becomes thickly furred and brown even black and fissured; The patient is now in great danger! he is suffering from Typhus

If the case terminate fatally it will generally be before the 14th day. In fatal cases all the symptoms just detailed are increased and the patient dies by way of Coma.

Now there are the two principal types of simple uncomplicated ~~from~~ Continued Fever observed by me in the

Country during the last 25 years. And the latter or severe form may be complicated and is so frequently with

1. Cerebral inflammation or congestion within the former is rare.
2. Inflammation of the ~~thoracic~~ lungs or bronchial membrane (frequent)
3. Inflammation or disorganization of the intestinal mucous surface especially the glands of Peyer in the small intestines (frequent)
4. Various eruptions or spots either of a bright rose color described by Copland by Louis as peculiar to intestinal fever and recently by Jones as pathognomonic of such affection — or of a dark mulberry color sometimes being the form of vibices. And accompanied with more or less hemorrhage from the bowels. — both these appearances in the country are rare and only considered as symptomatic of a putrid or low degree of the blood

5th Gastric and Hepatic complications
– the first characterized by great
sickness and the latter with by
dark black stools – & both these
are combined in not unfrequently in
Country practice.

It would be quite impossible
in entering here into a description of the several
varieties of Continued Fever which result from
the complications above mentioned. They
are familiar to all practitioners either
in Town or Country. I believe them all
to be varieties of one disease – produced
by a similar cause and communicable
one to another in the same ratio as the
intensity of the disease. The complication
of pulmonal congestion or deposits or
Exanthemata are also believed to bear
a distinct ratio to the deprived condition
of the blood and not to be typical
of any distinct variety. These appearances
are & however met in country practices. In the
worst cases occurring in the Town in
which I lived which had a population

of 3000 inhabitants I have occasionally seen them and I met a medical gentleman in Constantinople a short time before I left Suffolk in January of 1858 - in a case of Typhus in which mulberry bark was freely administered. He both remarked upon the rarity of the circumstance and in a letter which I received from him a few days ago (March 1859) he informs me that he has had no other case where signs of any kind were seen since.

In the Town and immediate neighbourhood of Portsmouth when I left there was prevalent a purely pustular exhalation from which continued 7 days. in which there were no head symptoms. The disease was chiefly characterised by dark almost black stools with abdominal pain not iliac tenderness. After I left the disease spread by contagion & was severe in some instances very fatal. I saw no symptom of any kind in the cases that came under my observation. and in answer to a letter which I wrote to Mr Harper a medical gentleman residing at

Stowmarket. I received the following
"I have fortunately lost no cases of the fever prevailing here – but a good many have died in the practice of my friends Six deaths took place in two families
* I have never seen any appearance of rose rash or petechiae but I hear Mr – had <u>one case</u> with rose spots; there are no head symptoms. My cases have all done well as I fortunately brought them through the exhausting diarrhoea; <u>the stools are perfectly black in all cases</u>. I have had a slight attack myself."

Another practitioner Mr. Martin of Holbrook near Ipswich who sees a great deal of disease and has had an experience of forty years writes me word in a letter dated Feb 24. 1859. "I have at this time cases of Typhus Mitior and one of gravior under my care; none of them have either rose rash or petechiae I have occasionally seen both these eruptions but have never considered

Even indications of any peculiar Type but merely a proof of the vitiated State of the Blood and consequent want of tone in the Capillaries"

In the Year 1837 I had the opportunity of seeing all the fever Cases in a Small parish in Suffolk of between 500 and 600 inhabitants. There were 54 Cases of which 10 died and the disease was characterized by both Head & abdominal Symptoms of very great Severity particularly the former. There were no "Spots" in any single Case. In 1839 I had 26 Cases of fever in the same parish in which the principal Complication was the Inner Surface of intestines and lungs & in some pneumonia. Every Case was distinctly traced to Contagion, but there were no Spots in any of them Cases.

It may be urged and has been urged by some that these Spots were not found because they were not looked for previous to Dr Jenners Treatise. Does Dr Watson mean to be understood to say

* Library of Medicine . Art "Fever"

Spots I never saw them because I never looked for them". Surely Dr Watson must have known that both kinds of spots had long been recognised by practical men as occasional appearances in fever. And that Louis had long ago as noticed by Dr Clanston in his excellent description* of these spots in 1840 — indicated remarked the one last as peculiarly characteristic of the enteric form of fever so prevalent in France. For my own part I may say that I never omitted looking out for the appearances of these often valuable prognostic signs agreeing with the remark long ago made by Huxham "when black livid or dun or greenish spots appear no one doubts their malignity; the more florid however the spots are the less is to be feared; it is a good sign when the black or violet spots become of a brighter colour. The large black or livid spots are almost always attended with a gangrene tendency.

The small dun or brown spots like

Rackets are not much less dangerous than the livid and black, though fewer of blood do but seldom accompany them; the vibices or large livid or dark streaks rarely appear until very near the fatal end".

There can be no doubt however but that Dr Jenner has conferred a great benefit upon Science by the Zeal and ability with which he has worked out this subject — and that he has given us a faithful account of the varieties of Continued Fever which occur in London and perhaps in other large Towns. His division of these varieties agrees in the main with that of other observers and is in fact very similar to that of Cullen with the exception of which I cannot help thinking may prove a hasty generalization obtained from facts which have a local significance only. I mean that there do not characterise diseases specifically distinct and not communicable from type to type

* Principles and Practice of Medicine. 2d Edit. 1858

although they undoubtedly are in all forms from Species to Species.

Dr Bennett* denies the possibility of recognizing the typhoid from typhus in the early stages. Which in fact I consider if established as I believe it will be by future observation must upset the theory advanced by Dr Jenner on this point.

There is no town in the United Kingdom perhaps in which Continued Fever has been more fully investigated than this City as the works of Alison Christison Welsh Bennett &c and others testify and as far as I can ascertain ~~so far from~~ the appearances described by Dr Jenner as pathognomonic of Typhoid and Typhus fever have not been established here. In fact I find that the prevailing feature in the Pathology of Fever in Edinburgh is the absence of any morbid sign in the majority of cases adequately to account for the symptoms observed during life. In Paris on the contrary they are almost invariably connected with lesion of the intestinal

canal - and this circumstance readily accounts for the fact that Louis attached the appearance of rose spots as a pathognomonic sign of disease in Peyers glands - simply from the absence of other forms by which to institute a rigid comparison. Thus ~~in fact~~ we have a type of Continued Fever in Edinburgh another in London another in Paris another in Country districts - in fact this disease more perhaps than any other assumes different forms according to the localities or the habits of the people - in which it occurs; and I do not think it possible that we can lay down any general principles as to the classification of these varieties which should be applicable with certainty to any other place than that in which they were observed or of the seasons of each year or series of years ~~which~~ - which from all time have had an important bearing upon disease. It was well remarked by Sydenham that a treatment which might be highly successful in one part of the year

must be totally inapplicable at
once for the same disease. From
days of Cullen who writes upon fever and
the observers of fever have regarded the
Eruptions as a proof of a specific or like amount
of Malignancy and not as Evidence of
local complication.

I cannot from my own experience
add anything to what is known of the Pathology
of Fever. And I shall therefore pass on
to a brief Consideration of the
Treatment of Continued Fever

When I studied Medicine
30 years ago at the University of London
under Dr Conolly and the Clinical
instruction of Dr Watson at the Middlesex
Hospital I was taught that all
inflammatory complications were to be
met by bleeding and mercury. This was
in fact the mode of treating the early stages
of the disease then and for many years
afterwards. Prevalent in England.

Dr Conolly who had I believe
seen a great deal of Fever both in the

city and in London was however very cautious in the principles he laid down upon this subject. The theories of Cullen, Gregory and Armstrong were then rather losing favour with practitioners and I have indeed it appears to us in these days that the treatment founded on these doctrines should ever have met with favour at all

I find in my note of Dr Crawley's lectures in the autumn of 1830 the following remarks

"I consider inflammation always a secondary occurrence in fever; it is not so active as when it is idiopathic

I think the doctrine of bleeding in fever was carried to a very unnecessary length and fatal extent about 10 years ago

"The most careful observations I have made have convinced me that caution is requisite in pursuing either the stimulant or the bleeding method of treatment. I do not think that the effects of bleeding are proportional to the quantity taken as said by Dr Cullen: some require more bleeding than others. In some epidemics

bleeding is borne better than in others although it is often worse than useless

× × "Inflammation of the brain is one of the most serious complications of fever and therefore when we see symptoms of phrenitis we ought to bleed directly

× × "We should neither stimulate or bleed without a cause. Unless there is inflammation we have no reason for feasible indication to bleed; when inflammation sets in if it does not remain a question"

Such were the principles with which I commenced practice in 1832. I will relate the circumstances which induced me to change my views and to adopt ~~ones~~ others afterwards a very different system of treatment.

I have stated above that in the year 1837 I had the entire management of 54 cases ~~in one~~ of continued fever in one small parish in Suffolk

The symptoms of the disease were very severe. Inflammation of the brain was in many cases wide and decided by

marked by fulness & tension - intolerance of light. Quick rolled and full pulse. great heat of skin - contraction of the pupil occurring generally during the first week and often followed or preceded by diarrhea very difficult to control. It was impossible to have cases which were strongly indicated an inflammatory type - and in all the first cases I met with I bled either from the arm or by leeches - cold to the head &c. But every case so treated died. Two other medical men were called in to two other separate cases and they both bled. One of the gentlemen was a graduate of the University of Edinburgh. Both these cases died

I of course immediately changed the treatment. I avoided blood letting and gave wine early. The change of treatment was most marked and decided though one or two died from the abdominal complication yet in the end 44 out of 54 were saved.

In 1839 Continued fever broke out in the same parish with abdominal

and pulmonary complications. In every case there was either catarrh, bronchitis or pneumonia - but none often marked cerebral complications of the Epidemic of 1837. I treated every case by the early administration of wine irrespective of the inflammation in the chest or elsewhere and I only lost one out of 21 cases and that was a young woman in whom there was dysphagia from enlarged tonsils and no wine could be got into the stomach

Since this time I have invariably treated Continued Fever upon the same system and with a success which has often exceeded hardly ever disappointed my expectations. My plan rest simply upon the observance of three (series) Rules.

First. I consider medicine of almost all kinds not only useless but often injurious I hardly ever give anything else but the simple effervescing draught with an excess of the Bicarbonate of Soda or a Few grains of Nitrate of potash. If purgatives are required I use the Infusion - and I treat the diarrhea with starch injections and

about an ounce of the Syrup of Poppies or 20 to 30 drops of Laudanum - I have often found the first sufficient because I took care to have the genuine preparation - Cold Sponging is often grateful to the patient but it must never be forgotten that cold is a dispersant in Excess - with this Treatment all the Symptoms of fever will generally do quite well

Secondly. Dr Alison conferred an immense benefit upon Medical Science When he taught the necessity of observing the modes of death. - For many Years I have acted in the treatment of Fever almost solely upon the principle of meeting the tendency to death in this disease by way of Asthenic Stimulation and I have done this by the early administration of Stimulants. In some Cases wine is the only Remedy required from first to last and I believe the Amount is only to be regulated by the Condition of the patient. In one of the worst Cases I ever saw in a boy girl of 19 - a bottle of wine was taken every day for a week and I have always a

considerable quantity of brandy was added. The patient recovered and I am as certain as I can be of anything that she would have died had not the stimulus been kept up night and day. Since 1839 I have never allowed any kind of inflammatory to interfere with the free administration of wine whenever I found the tendency to death in fever required its use. And I have never had reason to regret it.

3 dly.

To carry out the principle of treatment enjoined by the medical man – the wine the ventilation – the sponging – the cleanliness it is absolutely essential to have good nursing. And this is a part of the treatment not always to be obtained. When a mother – a wife or a sister is at hand we seldom find a want of that affection and devotion which risks everything and often forfeits life itself in ministering to the wants of the stricken victim of this terrible disease – they will act as sentinels and carry out strictly every

order of the physician. But how often
meet with case ~~case~~ where poverty
or misfortune has left the subject
of fever almost friendless. Even here
however few medical men ~~have~~ escaped a career of 20 or 30 years
without calling to mind instances of
self-devotion that no encomium
can sufficiently overrate. It will however
be admitted as a rule that there cases
too often exemplify the truth that
good nursing is ~~the~~ if supplemented and
yield to none of our remedial agents
in value — in the treatment of Fever.

A weighty interesting question may
now be briefly alluded to.

Has the type of disease as exemplified
in fever or inflammation changed
during the last 25 years?

Now in looking at this question
with the facts of the past before one's
mind it is difficult to answer this
question in the negative — Equally
difficult to demonstrate the
affirmative.

Change of type in [illegible] & in old [illegible] [illegible] the [illegible]
[illegible] —— [illegible] as [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] ——

* Dr Watson. Principles & Practice of Physic

It is not easy to believe that the most eminent men in the Profession should have persisted for years in a practice which was fundamentally – physiologically and pathologically wrong.

Few men were a greater ornament of the medical age now passing along than Dr Armstrong. Deeply versed in the practical philosophy of medicine a logical thinker – a most careful and industrious practitioner and as an author so careful to exclude all which he could not demonstrate – and yet he bled to an extent unknown since his time. We are told indeed that before his lamented death he regretted that he had bled so freely and the same recorder* of this fact adds that he died a disbeliever in the doctrine of contagion – which we all know now was a great mistake, and the natural conclusion follows if wrong on one – he was probably so on both points.

Clutterbuck, and Broussais were champions of two great doctrines

× Treatise on Inflammation.

× Tweedie in Cyclopaedia of Practical Medicine
Article. Continued From

of Fever - which are totally distinguished now and we may fairly believe that treatment was wrong also

But most medical men who have since 30. 20 or even 15 years ago believe in the existence of a Athenic type as compared with that which obtains now. There seems to be something like an oscillation in medical practice - Why should it not indicate a change in the type of disease rather than so great an error as it appears upon common judgment and medical philosophy?

Dr Hunter[x] writing 50 years ago spoke strongly against the use of the lancet as practised then and remarked "there is now much less necessity than formerly to have recourse to it. When Rasori came to Edinburgh to learn the doctrines of Brown - he became a convert to the Asthenic nature of fever. But when he returned to Italy his patients all died under the use of wine - which induced him to change his treatment and his doctrine together [x]

Sydenham and Cullen were great advocates of bleeding but they both refer to typhus and Sydenham it what bleeding would not be borne

This difference in the type of disease has ~~in fact~~ been noticed in all times of the history of medicine It is a fact indeed with which we are familiar in our reading and in our habits of thought. - but it is not the more easy to demonstrate for all that.

Webster for instance says that he believes there is a ~~type~~ change in the type of disease and he represents Dr Physick

this has been caused by the visitation of the Cholera in 1832. But the opinion first was the physician communicated though announced by a man so eminent as Webster. I saw a great deal of Asiatic Cholera in Moscow in 1832 when it was marching towards England and I well remember how we traced its progress from East to West how putting the place down that - creeping along the course of rivers and running

* When Asiatic Cholera was at its height in Warsaw in 1832 – it carried off 100 Jews between the Commencement of their Sabbath and the Monday morning of the week. I need hardly say that the Polish Jews are the Aristocracy among the Jewish race of people in Europe.

the scenes of filth and dirt.* It never appeared at all for instance in the neighborhood of Stonehenge & many parts of the East of England and yet I can here personal testimony that Fever and Inflammation diseases of all sorts have treated successfully without depletion. Next then looking at the difference of type of Fever in London. Edinburgh and Paris we are naturally led to the question. Does climate influence the type of disease and if this as it must be, answered in the affirmative — then has the climate of England and Scotland changed during the last 25 years? As far as my personal experience goes I am a believer in a gradual warmer climatic change in this country. The winters of our youth perhaps from physiological causes appear colder to our minds eye as the winter of life approaches but I still the conclusion if such it be is shared by a great number of observing men.

There is one fact however which
cannot be denied viz. that one bled
and mercurialized in inflammation
whether idiopathic or connected
with Fever 30 years ago - and that
we treat the same diseases
now by stimulants and more
successfully than we did then

It would be foreign to
my present purpose to pursue
this subject further, but I must
add that since I became connected with the
City I have heard from the Clinical
Chair of the University an explanation
which appears to me entirely satisfactory
and of what was before obscure and
unintelligible.

According to this theory
inflammation is simply a disease of
debility; it consists in an exudation
of plastic living matter, which undergoes
the process of cell development from
its granular deposit to the purulent
; that the pus corpuscle is itself at

× Dr Brunetts Clinical Lectures.

the allotted period of its existence, death to be cause of cells like bodies broken up and dissolved and cast out of the system by re-absorption into the blood and that the disturbance created in the system by these efforts of nature constitute the phenomenon of inflammatory fever.*

This doctrine explains much that was obscure before and in its application to the treatment of fever is supported by the modern theories of fever itself. For whether we believe with Liebig that Fever is produced by a poison in the blood acting by concurrent affinity or whether we deduce from the experiments of Brown Séquard the inference that such a blood poison acts by first paralyzing the sympathetic (a doctrine lately since advocated in reference to Asiatic cholera) — whether I say of these doctrines we believe — or whether we trust in neither we are still driven by undeniable facts to the conclusion that continued fever is essentially a disease of

debility and can only be treated successfully upon principles founded upon such a doctrine.

"Non enim tam auctoritatis in disputando, quam rationis momenta quaerenda sunt".

C. A. Bell

Mand 12. 1859.
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