

AN

INAUGURAL DISSERTATION,

ON

*Bilious Remittent Gastric Remittent fever*

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BY

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Bilious Remittent-Fever, Gastric Remittent.

Under the influence of prolonged heat & unfavorable situations remittent fever while it still retains its-inflammatory character assumes the appearance of derangement of the biliary apparatus with a yellowness of the skin constituting the bilious or bilio-inflammatory variety of remittent fever. Its analogy in course & history to malarious intermittent "as declared by Dr Dickson to be very close" From a continued fever it is widely separated. The chief seat of the disease is in the stomach & duodenum with the inflammation of which the brain greatly sympathizes. Hence in addition to the vomiting violent pain in the stomach and back there is often a cruciating head-ache most-felt-in the supra-orbital region and delirium here the



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flamed. The nausea is increased vomiting comes  
on and much bile is ejected in this way. and  
sometimes passes off by the stool. The pulse is  
fuller and sometime rises 90 and is hard. Often  
also it yields to the pressure of the physician  
finger and beats from 90 to 120 in a minute.  
The breathing is more hurried restlessness great or  
thirst extreme the patient in this state of nausea re-  
jects every thing offered to him in the way of al-  
iments and also of ordinary drinks. The tongue  
is loaded with a yellow <sup>ish white</sup> deposit in the center and  
is red at the borders and point. It soon exhibits  
a brownish yellow crust or fur. Delirium some-  
times occurs and aggravated pain in the back  
and limbs. although often with the febrile reaction  
there is diminution in this respect. After a pe-  
riod of indifferent duration a slight moisture

and lesions observed after death as inflammatory and mortification of the stomach and duodenum. This fever is supposed to bear a resemblance to the yellow fever. This peculiar fact has been noticed by Pringle and other army surgeons.

Symptoms - The first and most uniform symptom of bilious remittent fever is an indescribable uneasiness of the stomach soon followed by languor and weakness: To this succeed coldness and chilliness of varying degrees vertigo nausea violent pains of the head and back. The face is pale, skin dry & corrugated. Eyes languid and hollow pulse frequent and small breathing laborious and interrupted by sighs. These are the symptoms <sup>in the cold stage</sup> corresponding with the cold one of intermittent fever with the continuance of the paroxysm. There is a blending of the sensations of cold and heat but the latter acquires the ascendancy and the face becomes



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shows itself in the face and forehead which gradually extends over the rest of the body and brings with it a decrease in the violence of the symptoms. A remission - in fact, In the remission the pulse returns almost to its natural standard as regards force and fulness but it is still somewhat more frequent than in health some but greatly mitigated head-ache and pains of the back remain as also do an unpleasant taste in the mouth anorexia after a short and sometimes a barely perceptible remission it may be called diminution of the fever. A fresh paroxysm or exacerbation comes on which is now however seldom ushered in by chill but there are aggravations of head-ache greater restlessness and anxiety Cardialgia nausea vomiting and sometimes bilious dejections. The matters vomited are often of a charred coloured



being sometime like a mixture of lime water and coagulated milk at other times glairy, mixed with dark grumous matter or particles of bile. The febrile heat, unquenchable thirst and delirium returns the ~~throat~~ tongue becomes <sup>dry and</sup> encrusted with a dark or black matter in the center which also shows itself on the teeth and inside of the lips. The breath is offensive and hot. These symptoms are mitigated in a fresh remission which however is shorter and more imperfect than before and is soon followed a renewal of the exacerbation with aggravation of the disease and includes great muscular weakness and prostration if this seeming exception to this latter is during the irregular effects delirious excitement in a paroxysmal period. The vivid flushed of the face is now replaced by a dingy hue approaching to a

dirty blue more evident - in the face where the disease has continued for several day with increasing debility. The skin and eyes are apt to assume a dull yellow color at the same time that the features are shrunken and hollow. This yellow color following the discharges of bile has contributed to the use of term "bilious" by which the remitting fevers of warm latitude are so generally designated into a discussion as to the propriety of this pathological view I shall now not engage. That the liver is seriously implicated by functional disorders at the same time that there are constant and evident lesions of the stomach and duodenum, it may be well doubted however whether the change of the skin be dependent on hepatic derangement so much as a morbid condition of the general capillary condition. In some conditions



or cases the strength is greatly prostrated from the beginning in others it decreases gradually in the latter remissions But - although the patient himself makes no mention of it, the extremities are rather cold during the paroxysm and at the very time in which the skin of the Thorax & abdomen are distressing hot, The perspiration evident - in the earlier remissions is subsequently not-perceptible, But it is replaced by a cold clammy sweat on the extremities, The secretion of urine varies in its character with the successive changes of the paroxysm. It is in the beginning of the latter pale thin and copious at its height - high color or of a deep reddish brown scanty and cloudy and at the decline it is still very turbid and high color and lets fall a sediment - which is sometimes like brick-dust. And again of a muddy flocculent appear-

ance. The closing scene in fatal cases is well described by Dr Currie In his description of the bilious remittent fever as it usually appears in Philadelphia in Summer and autumn, "Of late years we see little of this fever in the City and contiguous districts. On the confines and adjoining regions it still common enough. And in seasons of epidemic visitation it appears to assume features of violence and complications that might satisfy the most exacting of our professional brethren from the far south and west." Dr Currie says "When this fever proves mortal and the strength is nearly exhausted the patient as in the last stage of other fevers lies altogether upon his back and frequently slides to the foot of the bed. In this condition he has more or less twitching of the tendons at the rest, and



is affected with low delirium in which he mutters incoherently to himself. His tongue his teeth and lips are covered with a dark colored sordid crust. His tongue trembles when thrust forth from the mouth for inspection.

His eyes appear dull and stupid. Sensibility which in the early stage of the disease was too acute is now the reverse. His hearing becomes impaired doses with his eyes & mouth half opened. He sees objects indistinctly and clouds appear to hover around him. A stupid insensibility pervades all his faculties. The sphincters loose their retractive power. The feces and urine involuntarily. And as if lamenting his hopeless condition tears steal down his ghastly face. The pulse falters and only moves in tremors loosing on the slightest pressure all motion. A cold and clammy sweat

bedews his torpid limbs: His fingers his nails  
his lips grow purple His respiration becomes  
interrupted by a collection of phlegm occasioning  
a peculiar rattling in the Trachea vulgarly  
called the death rattle, & frequently interrupted by  
hiccups: These symptoms are generally soon  
by death: In some cases this fever is pro-  
tracted from one to four weeks in others it  
terminates in a perfect intermission in as  
many days especially if properly managed.  
Cold and clammy sweats are almost infallible  
signs of approaching death. In every stage  
and period of this disease a perusal of the de-  
scription by Dr Currie of the bilious remittent  
fever of Philadelphia written in 1798 and  
of the well written essay of Dr Bowling as  
it occurs in the Southern part of Alabama  
will satisfy the attentive reader of the general



various of the pathognomical character of this disease in places situated far from each other by many degrees of latitude. The same general condition of atmospherical distemperatures by heat and moisture alternately with coldness and of particular condition of soil being present. Dr Bowling thinks that the representation of some authors of the bowels being obstinately constipated in the fever is a mistake. In this belief he is countenanced by Dr Currie. He describes diarrhoea as no usual <sup>symptom of</sup> the disease but this writer judiciously states <sup>in</sup> another place of his description that in cases marked by high arterial action or inflammatory symptoms the evacuations of bile is an unusual symptom and the patient is inclined to be constipated until after the preternatural and strong action of the arteries

is reduced by depletion. Dr Currie states that in beginning of <sup>many</sup> description that in many cases the cold stage is accompanied with cholera. In others especially when the fever attacks persons of a plethoric diathesis are strongly disposed to local inflammation. It is attended with constiveness. It is not uncommon however as Dr Dixon relates & all they who have seen the disease must know for a perfectly acclimated adult natives residents sickly and strangers frequently familiarized to the air of these places ~~to~~ after the tenth or twelfth day into a low state of fever resembling the less severe grade of Typhoid. And hence obtaining the designation of the Typhoid stage of bilious fever.

Diagnosis It is well remarked by Dr Bowring between a well marked case of remittent



for the distinction is palpable and the diagnosis and yet they run into <sup>each</sup> other by such imperceptible gradations that the physician is sometimes puzzled under which head to place a given case. A case is ~~the~~ distinctly ~~intermittent~~ at first will prove if neglected or injudicious treatment sometimes gradually and almost imperceptibly assume a remittent form when they are at least but modifications of the same disease and may be supposed to present to present corresponding pathological changes. Dr Currie says expressly from the remission it differs in no essential respect excepting in the violence of its symptoms. The remission in most cases of each being one day more perfect than another. Dr Dixon also mentions the striking analogies of bilious remittent in its course &

progress with the period of the double tertian  
formidly described particularly known even  
to nurses and the common people that the ex-  
acerbation of alternate days offer a very no-  
table correspondence in times of invasion  
mode of access degree of violence and length  
of duration. They preserve throughout in many  
cases to the particular determinations which they  
are committed or complicated thus the head  
will be most affected in the first-third and  
fifth days and the Stomach or bowels in the  
second and fourth and so on. We meet oc-  
casionally with examples of equally ob-  
vious analogy to the Triple Tertian. These  
will occur on alternate days in these two  
definite exacerbations with but a slight  
and transient remission between them.  
The distinction between remittens & Typhoid



fever is sufficiently obvious at the outset but as the period is prolonged there is no little community of symptoms among these diseases. The typhoid stage of bilious remittent approximate very closely to typhus proper and the pathological changes is or ought to be in harmony with the general changes in treatment.

**Prognosis** This is always grave when bilious remittent terminates favorable. The remission becomes more distinct and are marked by a warm and diffused moisture of the skin, a copious sediment of the urine a more regular action of the bowels moisture tongue less frequent pulse with diminution<sup>of</sup> nervousness and inclination to natural sleep. The season of the year and of the weather and especially present an epidemic constitution and a particular locality modify not a

little the result Great and sudden determination to a particular organ is a bad arguery. The constitution and habits of the individual himself as being unacclimated or of intemperate habits will influence us in making an unfavorable prognosis

Treatment— In the treatment of this fever is an analogy to that of the simple inflammatory with this important reservation that we cannot bleed with the same freedom nor frequency in the latter as in the former In the young and vigorous subjects recently arrived in a sickly region amputation to an extent short of syncope when had recourse to early in the disease will precede other remedies but— if we look for a solution or even material curtailment of the disease by this means we shall be greatly disappointed The pulse is red



ily reduced by venesection but it soon re-  
covers its morbid character and shows that  
it does not represent simple vascular  
excitement - were we ever assured that gas-  
tritis and associated diseases of the brain and  
Meningitis was present in every case of the fever  
We could not hope to remove them by copious  
blood letting to prevent disorganizing  
inflammation and allow time for the tissues  
to recover gradually normal state and the  
nerves and vascular to be correspondingly  
tranquilized is all that we can expect by  
any mode of treatment in this fever. May I not  
add in all fevers however strange it may  
be evidence of inflammation associated with  
them accordingly after a full venesection We  
must rely on topical depletion by cups or  
leeches for the relief of the head and stomach

In those who are natives or long residents  
of warm climates or sickly regions Topi-  
cal depletion must generally be preferred  
to emsection It may be of some benefit  
sometimes to use warm mustard Cataplasms  
or other fomentations with results little less  
impressive and satisfactory than those ob-  
tained from the other means. The continu-  
ation of the treatment will consist primarily  
of the cold bath and cold to the head. I must  
here recommend the strong Mustard and  
hot-baths as was directed in your by days  
to punish a patient into a reaction & leave  
him <sup>limping</sup> about with sore shins. If he should  
be so fortunate as to recover from the fiery  
treatment of hot-rocks and blisters, But-  
wisdom in these latter days has pointed  
out a better way. This wisdom I have -



seen many days past, but feared to act till  
I now see it through my honorable Teacher  
Dr Bowling who has made the way clear  
and plain and helps me to see the great good of  
cold water drinks if craved by the patient and  
purgative enemata in the lower stomach.  
The close resemblance between the hot stage of  
intermittent and the exacerbation in remittent  
fever would of itself (apart from direct ex-  
perience) ~~would~~ encourage us in the latter to use the rem-  
edy of the cold bath which has been found so ef-  
fectual with the knowledge derived from long &  
attentive observation of the beneficial effects  
of this remedy in nearly all the forms of fever  
including the remittent, I cordially concur with Dr  
Bowling in regarding it as among the most  
efficient of our febrifuge remedies. All that  
we can hope or anticipate from blood letting

may be obtained in a majority of cases by the use of cold baths. While the latter promises the striking and obvious advantages that we can repeat it as often as the symptoms are renewed that require it. It may be used by affusion where the patient is able to sit up and in other cases where there is great local determination and heat as in the stomach & head we may direct ice or clothes taken out of cold water to be applied to these parts with the most soothing effects. For and intractable stomach & craving thirst this remedy and an allowance of ice water for drinks or even bits of ice allowed to dissolve gradually in the mouth are preferable to all the draughts and mixtures hitherto devised. Immersion can be practiced where a bath tub is at hand by assistance raising the patient in a sheet and placing him gently in the water. If a prompt and decidedly sedative



impression be desired cold water may be poured  
at some height - on the head and along the spine  
If this is not borne well or produces too much of a  
shock take a sponge or a large towel and bathe  
the patient - till he is cooled of his febrile heat and  
the pulse is softened and easy; and he will then be  
willing to say God be blessed for water when I  
am hot - and he will say God bless you my Dr  
for ordering such a remedy. But - while this is  
a great remedy we must be cautious not to use  
it - where there are great discharges & debility  
because in such cases if we should fail <sup>to</sup> obtain  
its tonic effect - we have only aggravated the then  
existing difficulty, by driving the fluids to the center,  
the system being too weak to produce reaction, Rem-  
ember in such cases where <sup>the use of</sup> cold water is had recourse  
to be sure to use much friction. This will stimulate the  
Capillaries and promote greatly the reaction &

a determination to the surface. In continuation of the treatment of remittent fever we have recourse to emmata as a means of relieving the lower bowels, the stomach and upper bowels ought to be spared the irritation of either emetics or drastic purgatives. But we are not on this account to deprive ourselves of the soothing or sedative effects of Calomel in dose of five grains with a little gum Arabic every 4 hours. If sickness of stomach or nausea follow its use we not-worry and irritate the stomach with aromatics, or Cordials or even effereasing draughts but give merely a few spoonfuls of at-a-time of tolerable thick gum water. If the patient feels some inclination to go to stool or movements in his lower bowels showing that the Calomel has passed downwards, a simple enema of salt and water



will suffice to procure a billious evacuation which  
is an evidence not a cause of relief. Should  
not this not be deemed sufficient - Castor-oil  
Rhubarb + Magnesia may be administered. I expect  
that active purgation should be avoided but  
yet as part of sedation that Calomel may be  
administered in the manner already directed  
Nor would I recommend Salivation but on the  
contrary that it should be deprecated Calomel  
often performs good service without causing  
either purging or Salivation. It abates vas-  
cular excitement and febrile heat - causes  
a cool or soft skin and moist tongue. No  
unimportant index assuredly of the relief of the  
intestinal canal and chyliferous vessels  
generally. Opium withheld until sensation  
or cupping + leeching & Calomel have reduced  
the inflammation and febrile excitement.

and brought-about-languor and a more distinct remission will now display its proper soothing & diaphoretic effect by inducing sound & refreshing sleep and by completing the beneficial effects upon the skin and capillary tissues in general which was begun by the Calomel. This last-medicine is safe & proper & usefully given during all that period of fever in which the system is not to be affected by it - that is during the period when it-fails to salivate. As soon as we have the slightest evidence of incipient-ptyalism then ought-we to desist-from its use. We have now procured its appropriate sedation and counter-stimulant-effect and a reaction owing to inflammation of the salivary glands cannot-but be injurious and more or less subversive. The good already accomplished



How shall I dare to bring to notice the following treatment after having urged so carefully the very mild course of treatment - above considered. But - allow me to say that - facts are stubborn things. I do know that I have in my short-practice have been the means of breaking up severe attacks of bilious remittent - fever by first - giving and emetics followed afterwards by a large dose of Calomel combined with ~~and~~ opiate.

I have often been called to see a patient and find him suffering with a severe headache pain in the back & legs pulse full and strong sufficed eyes and delirium. The question then came to my mind what - is the great - cause of this distress. The answer comes a vitiated bilious condition. The liver is loaded

the Stomach & duodenum is seized by its  
acid influence upon it. It is not healthy  
bile. To this is added other morbid and  
poisonous matters. Nature says get rid of this  
but she is too weak; I then determine to aid  
her by giving a full dose of speaculana  
This medicine here performs many times  
what would take a week by the mild means  
In the administration of Speaculana under  
these circumstances I always cause  
the patient to drink a large quantity  
of warm water. It seems to have a happy  
effect upon the whole system. It washes  
out the stomach and leaves the patient free  
from thirst. The pain is gone from the head  
a gentle perspiration is diffused over the  
whole body thus as it were making a  
clean sweeping of the fever in 24 hours.



giving the full opportunity to bring to bear  
the "Champion Currier" If we can by any  
means bring about a decided intermis-  
sion in this fever we have it under our  
control It may be asked upon what con-  
sistent rule would you give the emetic in  
the last described condition which seems to  
contraindicate vomiting when there is so  
much fullness of the head. The answer is  
<sup>this</sup> while under the nauseating influence of Ipecac  
the whole arterial forces are completely re-  
duced. But in case we fail in this under-  
taking we will have to go back to first <sup>the</sup> prin-  
ciples and use the slow but progressive treat-  
ment. Of course this treatment will depend  
very often upon the stamina of the patient whether  
we bring all our forces to bear upon him  
at once or act by degrees If robust & strong

we can come to a full charge at once but if effeminate and of a weak nervous temperament of course we must be careful not to produce a shock to sink below equilibrium and by so doing sink our patient into the and irremediable condition. It is certain we have a great many difficulties to contend with in this fever. The nausea and prostration leads our minds to many means and remedies under such circumstances It behooves such as act as sedatives. If I have often found <sup>1</sup>half grain doses of Coloured Tincture add one gr of Ipecac one eighth of gr of Morphia grain in a little gum water. These remedies act in great concert in overcoming the gastric irritation and checking the nausea & vomiting. Great Comfort is often had in connection with these med-



ices by ringing clothes out of cold water and laying them over the region of the stomach - wetting the face with tincture of Camphire. If the irritation continues we are to continue the coloidal powder. And in case there seems at any time to be great prostration we give wine, Whisky Carbonate mixture and sometimes the Espricium will be found useful in supporting the nervous system. I will mention here that I have used the lime water & milk with great success in checking nausea & vomiting. If these remedies do not control the above condition in the course of a few days we had better use a blister of flus to the epigastrium if the state of inflammation will admit of it, If not pursue with ice and cold water cupping & leaching &c.

The Syringe should never be forgotten in all of this condition. Landmann & cold water will often afford signal relief if but persevered in. This may always be used also when there is a tendency of the bowels to run off. Every time the bowels discharge their contents at the same time it gives great strength to the patient - Of course it will be found necessary here to consider how means the best-calculated to nourish our patient - What kind of aliment is best My experience has led me to believe that ~~corn~~ meal gruel is far better than any thing else - made as follows - Wash corn meal & boil it with a sufficient-quantity of water boiled from one to two hours then add to <sup>2 parts of</sup> gruel one part of sweet-milk This will be retained on the stomach when all other articles are



rejected at the same time it will be found  
to sustain the patient well. In connection with  
the above fever I might have written some-  
thing in regard to congestion - its effects &  
treatment - but - I hope it will be considered that  
I have been tedious enough but - of course  
it matters not what condition there may arise  
it must be met on philosophical principles  
Reduce congestion or inflammation by equal-  
izing the circulation Keeping the bowels  
gently open also the kidneys & diaphoretics  
means will determine to the skin. Bleeding  
cupping leeching cold water blisters bath-  
ing frictions are the great remedies to be relied  
upon Assist - nature but - do not wound her Give  
her a fair chance & she will do right - nine times  
out of ten This is my thesis to the president -  
& faculty of the medical college of Nashville

Daniel Abbey