AN INaugural dissertation
on
Adiabatic Cholera

Submitted to the
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of the
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Doctor of Medicine.

By
John T. Hays

of
Lebanon, Tenn.

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Gentlemen Professors of the University of Nashville. Medical department, it is the duty incumbent on any candidate for graduation at the end of the present session to select and prepare a thesis on some medical subject. I as one of the members of this institution propose to offer for your consideration some remarks on the subject of Asiatic cholera. An which perhaps is as important as any subject in the science of medicine. A disease which has given more trouble than all other diseases combined. A disease which seems to be covered deep and thick with the veil of mystery and rain it lesson to our land and country and which is feared even more than pestilence, famine and war. A disease which has slain its thousands and multiplied thousands for the last five years. And gentlemen when the great men of the present day tremble even at the near approaching name of cholera proving in some degree a perfect panic to the community.
So I must confess that it is with fear and trembling that I endeavour to offer a single thought on the subject. Yet I will only speak the things which I know and testify to the fact I have seen for much has been said and done concerning this malady all to but little purpose. We see things laid down in medical books coming from men of fame and distinction and yet if we notice the disease of common occurrence we witness none which cause us to doubt the skill and judgment of the scientific on the Stock but I will proceed with my subject.

Cholera, I ask what is it? I confess that I can't tell and I do not believe that the medical faculty has yet decided, like fever we know it when we see it we meet it and recognize it on all occasions we combat with it and still we are unable to define it.

Cholera when ever we are introduced even afterwards it is familiar to us we can't see it and not recognize it.
It leaves a lasting and sorrowful recollection never to be forgotten as long as we live. Cholera I consider to be the champion of all other diseases. The monster of the loving lion seeking whom it may devour, and even at this time I can look back with feelings of solemnity where this disease even in this land and country has cast a perfect gloom over the city of Nashville and nearly all the little villages I could mention. Nothing to be seen but doctors treading aged hearts traveling to and fro to deposit the dead. The signal of bells announcing the burial of some departed friend. The planes of the mechanic whistling and throwing of its shavings in the preparation of coffins. The cries of the distressed mourning lamentations. Nothing save these things mentioned could be seen nor heard. And to some years to many. These recollections will be the dreariest spot in memories. Wast never to be forgotten by friend, parent, husband & companions.
I well remember to have witnessed many scenes which are fresh in my recollection as though it were yesterday. This disease has now just to persons. The sick, the poor. The Monarch, Kings and all have yielded and fall at its command.

The origin or first appearance of cholera was in our land and country January no. We are told that it had long been raging in India but first began to attract the attention of the medical profession generally about the year 1817. At that time it broke out in Bengal as a violent epidemic from thence it commenced its fearful march and did not cease until it enroached the whole globe. Several years after this we see it make its way westward and it seems to have swept the United States at New York about the year 1833. Since that time it has continued its march and has not failed to visit nearly every country and every little town I could mention.
Confined to no particular class of persons
having no regard to locations seeming
to come without a cause disappearing
suddenly seeming to be controlled or it
hereby the winds or change in the
weather.
For me to pretend to give
any cause for explains its causes would be
presuming in the extreme. as men of
age. science and great minds have failed
to explain its mystery. though all the
laws agree that it is an epidemic and
truly may it be called so. It seems to
me to act as a ferment or. diseases
while in the atmosphere if it comes in
contact with any thing which has the
least affinity it leavens it and partakes
of same nature. not acting as the leaven
spoken of in the holy scriptures as
being of the bread of life. but as the
leaven of death in all its holiness.
There seems to be several stages of
this disease laid down in books and all
persons who ever witness a case of
chlorosis are willing to confess the facts.
As it is plainly marked out in the progress of the disease. The first stage is called Cholorine operating more mildly on the system than the other stages of this disease. The symptoms in Chlorine or first stage is not so alarming and is not always so severe. I understand correctly. This stage is frequently followed after mild dysentery or simple diarrhea taking on a more decided character and without amounting to true Cholera. This is what constitutes the first stage Chlorine.

To give a full detail of all the symptoms in this disease would be a useless task and would certainly weary your patience so I will only give a few of the most common symptoms in Chlorine. We sometimes find the patient slightly fevered a considerable thirst patient constantly calling for water and ice. Impaired digestion causing nausea in stomach vomiting feeling a general weakness and if not promptly attended to in this stage it will often terminate in true Cholera.
Symptoms in true cholera we find them much more alarming than in the
losings and when any rational man will think for a moment on this sub-
ject I am disposed to conclude that these veins are chilled with terror. It is to
me I confess more alarming than even death itself for if I understand
the symptoms they seem to depict life in all of its horrors imaginable—
symptoms are such as vomiting, purging both incessantly cramping,
in extremities and muscles of body muscles of arms and legs also cramping
of Stomach and bowels. The patient dying rapidly pulse hardly perceptible
the bloods stagnated as I have witnessed by respectable Physicians that the
on surface had no effect whatever
and even after the veins had been
opened that little or no blood showing
itself the flesh of patient being much
shrunken assuming a purple hue pervad-
ing over the whole surface of the body.
The countenance changed Prostration so great as to change the voice scarcely to be heard unless very near patient. These are some of Symptoms present in true Cholera though not always present. I have seen cases of Cholera where some were wanting in truth there is no regularity in the Symptoms connected with this disease not like many other diseases of our country generally having a regular chain of Phenomena by which we can form some Ideas of Progress giving an opportunity for the Practitioners to reflect examine and conclude the probable progress of the disease and adopt such remedies as are indicated.

Not so with this Scourge indeed. It comes as a Thief in the night runs its Course rapidly giving no time for Consideration scarcely time is allowed for the Administration of Medicine.

The character of the Discharge from bowels in appearance is much as Soap Suds
Mixed with mucous sparkling
foaming as it were seeming to indica
to irritation in the highest degree. This
characteristic is not in the commences
ment of the disease generally speaking
Though I have seen it the first opera-
tion from comets commencing copi-
ous nearly or quite a half full comor
comber vessel. The first move incre-
ening until a vessel entirely full ev-
ery move patient sinking down and still
downwards gradually changing into what
is called rice water discharges and the
changing until I have seen the dis-
charges as clear as spring water pro-
ecing not a particle of change on the
bed clothing when it comes in contact
with them turning off from the towels
inevitably resisting all the means of
 treatment saying no regard to any
whatever. This is the case the
patient you can see death before your
eyes apparently in action there is nothing
in the condition of patient that will cure
Every hope of recovery fades away. This is expected but death and that speedily as I have before remarked. There is no certainty in the regular presentation of symptoms. The worst form of cholera as I believe is where there is but little vomiting hardly any discharge from the bowels perhaps one or two bits stools no perceptible spasm no pain of any kind patient dying without a struggle. I well remember to have witnessed two or three cases of this kind during the prevalence of cholera in Lebanon this Fall in the Spring of 1849. Month of July a August several Medical gentlemen will testify to the occurrence of these cases as they were present on these occasions

The most constant symptom appearing in this disease as I think is the acceleration of circulation always as I have found a quick small pulse. Thus I have several particular and always fine in a confirmed case of cholera a small pulse.
After giving you some of the symptoms present in both stages of this disease, though I have not gone into a full detail of them as I deem it unnecessary for I certainly would trespass on you patience, I have therefore only presented some of the most prominent.

It now devolves that I say something in regard to the treatment indicated, and although the remedies which are used in this disease are so very numerous as one can hardly mention them all, yet I am at loss to now how to proceed but in doing I will only mark out the course which I conceive to be the best. For if I were to introduce the supposition on the treatment of this disease I would have to write a large volume on this very subject. And perhaps not only try you patience but at the same time advance nothing strange or interesting to your consideration.
Neither do I expect to offer any thing new to you as I am satisfied that I am utterly incapable of so doing. I am aware there are great difference of opinions existing among the medical profession at this day and time concerning the treatment of cholera. As this is the case it is hard for a young man like myself to endorse either sentiment. So I therefore think the proper mode to pursue would be to examine the premises advance from what I have seen and concluded accordingly. Some of the standard authors Mr. Boll, Tuke & others have adopted for the treatment of cholera the emetic and purgative plans. Treatment some other authors recommend the laxative and saline also venisection in both stages of the disease. In justification of this treatment they say that it is nature made of depletion as the symptoms commence generally with vomiting and purging.
In order to assist Nature in her treatment I propose to use Emetic and Elixir oil as an Emetic and Elixir oil as a cathartic. In this plan of treatment I cannot subscribe, for the simple reason believing that the Purgation and vomiting being the result of a lesion existing which produces this state of affairs and not a mode of relief I therefore could not think of giving the remedies which has been recommended and in justification of my position which is founded more on observation than any thing else, I would refer to the effect produced by this incessant purging every time the patient has an evacuation from bowels we see its effect a constant sinking. This fact is plain to be seen by all and which will not be denied by any. The advocates of the treatment to which I have directed your attention contend that this disease is relieved on some principle that simple alleged is relieved
by lessening the congestion of stomach and bowels I admit in ague and alimentary that there is congestion existing in the intestines and am fully persuaded that the laxative and saline treatment is plainly indicated but I do not admit a constipated state of the intestines in cholera instead of this I believe the capillary vessels to be in a relaxed condition and drawing out their contents without the necessary stimuli to prevent this copious evacuation from bowels
In support of this proposition I will simply refer to postmortem examination in ague and alarath what is the condition of the alimentary canal there can always be traces of inflammation to some extent in cholera what is the condition I am told that postmortem examination reveals nothing mahan every portion of the abdominal visceras presenting a relaxed
Colaps appearance no marks of inflammation whatever.

I could offer other considerations but deem it useless for the present as it is not my intentions to do anything more than simply reject this plan of treatment and offer what I consider to be the better adapted for the cure of this disease and one if I was called on I should pursue.

In the treatment of cholera Than has been many remedies offered to the public some called a preventative to wit Cannon Agden and many others someone called Specifics. In many diseases I believe than are Positive Specifics as in the common intermittent diseases of country Fever Ague the article Quinine supposedly used will eradicate this disease entirely. In other diseases I could mention Specifics but in true Cholera I believe the Specific has yet to be found. For I have seen administered and have given a
great many preparations and never have
found much relief resulting from
their use and to attempt to relieve
A Confirmed Case of Cholera with
any one of these articles would be
folly in the Extrem. In ordinary
Quarrels, they might perhaps be beneficial.
Though I should greatly prefer some gentle
Laxatives as the most of these contain
Stimulants and astringents combined
which is only calculated to produce Di-
arrhœas and stop the evacuations
from barrels whereas the Laxa-
tives would free the intestines from
any appendiculating Cause which
might exist.

The treatment in Cholera not only de-
mands the utmost delicacy in the scientific
practice of medicine, it likewise re-
lies on the continued and undivided at-
tions of the Practitioners. He must give
The Case if it be a confirmed one his
whole time not like the Common
Ordinary Fever's resident. Continued
The indications of treatment can be fulfilled by another: we can give medicine with directions and leave for a while. In typhoid fever, we have from four to six weeks to struggle with its continuation. We can try a remedy or plan of treatment cautiously and witness its effects.

In pneumonia, we now if we use the Saner Tantum Esmeril and local elevation properly, we have a chance for succeeding in restoring the sufferer to health. We have some assurance of a quiet, nights rest — not so in this "felled disaster" Cholera. We must stay with the patient for if we give medicine and leave perhaps be gone we return. The patient is gone to his resting place never more to return.

Without saying more I will proceed to give my views in regard to the treatment for the cure and removal of this disease. I think the first object should be to remove the symptoms.
If vomiting and purging be present I should use every means to arrest it. I believe if these symptoms can be arrested it will afford its time to prescribe such medicines as require time for those operations which will produce that an alternative effect on the system as to remove or reanimate the system. Believing that more work is calculated to produce this change I shall, if possible, continue with sulphate of morphia in pill or grain pills containing 12 grain morphia repeated according to circumstances. I propose it in pill for the reason it would perhaps be more certain to be retained if thrown up repeating until a sufficient amount was retained to produce the desired effect. Mercury being a fine promoting agent, while at the same time lessens circulation increasing the secretion of system than more confidence in it than all others. The morphi being a sedative and stimulant.
Therefore rely more on the two medicines than any other I could mention. As I have seen several patients who were in collapse state recover from the use of Calomel and Morphine. I have had some to contend that Calomel should not be used until the stools are controlled. I would ask the question if it will do good in this stage. Why will it not do the same good in the first stage as it requires time for its operation? I think the safe plan would be to lose no time in giving it but I proceed to give Calomel and Morphine first and then do every thing possible to have it retained by adopting means to quiet the Stomach and by using Mustard Plunges, WarmWater over Stomach & chest & stomach. If necessary to the throat also same turns using a The Remedy Aromatize DC to allay the vomiting. Trying all and refusing if it does not su
To control the evacuations of the bowels is of paramount importance. I prefer doing this by per rectum and have found Enemias of starch gruel and preparations of opium and French brandy. To drop from 1/2 to 1 teaspoonful of brandy about four or five table spoons full of starch gruel. I think the Enemias is more certain to be retained the last its bulk or quantity. The use controlling the bowels in this manner for this reason to nit. If you throw these medicines into the stomach you will excite and increase its action, which would cause it to throw off every thing one could give. These remedies must be given in proportion to demand of symptoms if you see symptoms become by time these lessen if increase increase the amount. I have found the extract of ipecac to be a good astringent in this disease and after using the preparations opium
To a certain extent I would substitute the
primary which would not produce
the narcotic effects which the opium
would by its continued use
exert. I should
commence this in fact Mr. Mu-
stand freely do not wait for cold to
set in. The great indications
are to keep ahead of symptoms
as possible as I believe it is much
easier to prevent them than to
overcome them after they make
their appearance.
If you find coldness in the com-
 mencement of the disease, instead
of mustard etc. in addition to it I
think turpentine is the best remedy
we could use. I have seen produce reaction
with many other remedies had failed
heating the skin which I would
mutah prefer a hot skin in cholera
then an icy cold clammy one
sinking the patient rapidly to his grave.
Surpentin I believe to be a valuable
remedy in this disease having wit

The good effect on several acedia

Intestinal Stimulation. If patient is

Seeking sustain them by the ad

ministration of Brandy and Gwnine.

I believe these are as good stimulants

as we could use. The Brandy is

very digestible and the ginine

more permanent in its nature. I

should always give wine in tums

believing it to agree with the stom

arch much better than water. I

would prohibit the use of any kind

of fluid whatever to be given in

Stomach as I never have seen it ag

gee with cholera. Patient acced

ting to such gentlemen is about

the treatment. I think indicated in

a confirmed case of cholera in a

mild form. The treatment should

be according to circumstances of

the case. As to the diagnosis it is

not complicated the symptoms be

ing.
So very plainly develop accounting ample
Stable evidence the disease not being to
Refined to any particular organ but in
devolving the whole nervous system as the
Here I therefore will say nothing more
Concerning the diagnosis in this disease

Prognosis I hardly think it worthy
While to mention as it is generally unfavourable
and I do not wish to dwell
On uncertain determinations.

Contagion. Much has been
Said in regard to the contagious of
This pestilence. If we look for a
Moment the manner in which Cholera
Progresses and its determinations we could
Conclude immediately that it was
Beyond a doubt a contagious disease
And many perhaps a large majority of the community and Medical
Profession believe it to be directly com
Unattached from one individual to
Another

I do not impeach the opinions of
Any but can not from my investigation.
In my conception, believe it to be common

secreted from one to the second person

I will offer a few remarks in support of

the position which I occupy

In small face means, Cherub Gonzales

I am satisfied that contagion can and is

arrested by passive contact. This is proven

and established incontrovertible. The trailing

phénomene in these diseases is inflatation

both of a local and general nature. The

virus from the operation of vaccination

will show its effects East in cholera

This is not the case. It has been twice

sufficiently to prove that it cannot be propagated

by immediate contact either from blood the contain-

tr of stomach of cholera patient. The op-

eration was trial by some gentleman of

Louisville. There is no inflammation dis-

ting and if it is contagious it is certainly

different from all other diseases we read of.

I think regard it to be possible, but not

contagious. The Cane I believe to be in

the atmosphere a most similar to the

Causes which produce all the diseases in similar

diseases. For the deceased, 1801.
I believe that the process of affecting a person or defends the surrounding circumstances to upset the continuity of the general system or the surrounding atmosphere being calculated in its nature to produce this disease being impregnated with a peculiar mixture of microphage. I think it may truly become a constitutional epidemic.

This gentleman of the medical faculty, I have given you some of my best advise in regard to the origin, nature, and treatment of this great disease. And as I expect for the future to make medicine for a living, and not merely shall little on medical subject. I have devoted that a small portion of time in the preparation of this document, as I believe it would be better for me to fail in writing than to fail in securing your confidence in the green room. I hope therefore you will excuse me for not offering something better for your consideration than these few lines contain. I am with high esteem your humble student,

John B. Hayes