

AN  
INAUGURAL DISSERTATION

ON

*Dysentery*

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BY

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## Dysentery.

Dysentery may be divided into two stages - the acute and chronic, and each is characterized by its own peculiar symptoms. Lassitude, want of appetite, flushes of heat and cold, slight pains above the umbilicus, occasionally Costiveness, sometimes and perhaps more frequently than otherwise diarrhoea, are the first or premonitory symptoms that attract our attention upon the approach of the disease. Rigors, sometimes marked chills, flatulence, oppression in the region of the stomach, nausea, griping pains in the colic region, with great desire to evacuate the bowels, are also common symptoms. Tormina usually succeed, and sometimes becomes almost

intolerable. The evacuations which at first contained some fecal matter become altogether unnatural - a glairy mucus makes its appearance in the stools, sometimes tinged with blood and sometimes blood is voided in considerable quantity.

The vascular system becomes very much excited and its equilibrium destroyed as is always the case in inflammatory diseases. The fever follows very soon after the dysenteric symptoms, and, I believe, is always in this stage of the disease of an inflammatory grade and usually continues so, though sometimes in the course of the disease it is said to assume evident characteristic marks of typhoid fever. I suppose this apparent change in the fever to be due to there being in



the blood, coexisting with dysentery, some typhoidal element - or cause of the disease and which as the dysenteric fever subsides, develops itself and produces its specific action on the system.

The tongue is usually coated at the beginning of the attack with a thin white fur, which as the disease progresses becomes brown and dry along its middle. Its edges clean off and become red and fiery, frequently assuming a granular appearance like raw flesh.

The gums become tender and swollen, and at the same time the breath very offensive. The pulse is depressed and frequent - the countenance shrunken and cadaverous.

The tormina, tenesmus, and dysenteric evacuations, will be sufficient to

determining the diagnosis.

The acute stage will last from four to ten days. If the disease has run on in spite of remedies, or in other words, the conservative powers of nature have not rallied successfully in subduing diseased action - the febrile heat subsides - the pulse becomes more frequent and hard - purulent discharges accompanied with debility and exhaustion, - we have reason to conclude that ulceration has taken place that the deeper structures have become involved that will require some time to effect a reparation, and now we may regard the disease as chronic.

Inflammation, as ascertained by pathological investigation, is considered by all to be the proximate cause

of the disease, or in other words this  
is the disease itself. But I would ask  
what produces this inflammation?  
Whence arises that state of the system  
that I have described above - those dis-  
tressing symptoms that characterize  
the disease? To these questions I  
fear I shall not be able to give  
very definite answers - for there are  
so many conditions and circumst-  
ances under which dysentery may  
and does manifest itself, that it  
would be a difficult task to assign  
to each its respective action in its  
production. Therefore, I shall con-  
tinue myself to consider only those which  
to me, seems to be most effective in  
producing it. There are invariably  
in dysentery functional derangements.

generally torpidity, of the Liver and skin. These morbid conditions always being present, it is reasonable to conclude that they are essential to its very existence, and if so, whatever produces them may also be effective, or at least, rationally considered among the remote Causes. From the prevalence of dysentery in malarial districts, being often found in connection with intermittent fevers, and from the Liver's being acted on similar in such, it has been supposed, that malaria has something to do in the production of this disease.

But whether or not malarial exhalations of themselves are capable of producing the disease, I am unable to say - but this acting conjointly with other causes may, I think, produce it. Heat is



necessary to <sup>the</sup> production of malaria, and this heat would naturally excite to inordinate action the exhalents of the skin. This being the case a sudden change of the weather, as from warm to cold - from dry to wet - would produce constriction of the pores of the skin - perspiration would cease to flow - there would be a determination to the internal organs - a sort of portal congestion would ensue, and finally dysentery would be the result. But since atmospheric vicissitudes, acting on the malarial diathesis, does not always produce the disease, there are probably other causes, some of which, perhaps for the most part, of an occult-nature. Unripe fruit; food not well prepared, or insufficiency of



food, in short, any article of diet of an irritating nature may assist the predisposition to the establishment of the disease, ~~and~~ even cause it, when there is no predisposition and, may, therefore, be regarded among the occasional or sporadic causes. Scybulla may also be considered among the causes, though, I think, it is seldom that these contribute much to the establishment of the disease. From the prevalence of dysentery epidemically, without regard to locality, season, food or drink some authors speak of "an unknown peculiarity of the atmosphere" as a cause. Such may be the case, but this is only hypothetical, and I must acknowledge that I have but little confidence in the existence of

any such influence.

Different notions as to the pathology of this disease has obtained in different ages. Some pathologist considered the disease to be a catarrhal or spasmodic affection of the intestinal tube - some that it was the result of a vitiated state of the fluids poured from the secretory organs, considering the inflammation secondary or the result of this - while others believed that the disease was the result of constriction of the muscular fibres of the colon and that attempts to defecate produced a sort of spasm of the bowel, which was communicated to the rectum and thus accounted for the tormina and tenesmus. The inflammation is now considered primary.

Dissection of the intestinal Canal, of those who have died with the disease, reveals an ulceration, the principle seat of which appears to be in the mucous membrane of the colon and for the most-part, the dufer structures are also involved. The small intestine and even the stomach have been found to exhibit-manifest-marks of diseased action. In cases that have died soon after the first-attack, from accidental causes, the structure of the seat-of the disease is found to be soft and spongy and the mucous membrane studded with numerous small eminences. The Liver seems also to be implicated, and has been found considerably enlarged and sometimes even its structure partially destroyed.



This I believe to be more frequently the case when dysentery prevails epidemically.

In making our prognosis we should always look to the greatest source of danger, and consider minutely the circumstances from which death would most likely occur. We are to apprehend death in this case from extension of inflammatory action. We can arrive at, tolerably correctly, the extent of the inflammation by the nature of the evacuations. The mucous membrane of the intestinal <sup>tube</sup>, like other mucous membranes, has a basement membrane and is well supplied with blood vessels and nerves. This membrane being in an inflamed condition, the capillaries would become distended from the loss of contractility, and

the discharge will be similar to that of incipient-coryza or bronchitis. In this discharge some authors apply the term glairy mucus. Little danger is to be apprehended from this discharge, even if it should be attended with great-tormenta and tenesmus. The bloody mucous discharge indicates that points of stagnation have been set-up in the mucous membrane, and the probability is that the deeper structures will become involved. However, the submucous tissue, not possessing so high a degree of vitality, acts as a shield to the muscular coat.

The danger will now become imminent as the disease progresses. Lesion of the muscular coat is characterized by

the bloody serous discharge. This will be commingled with the bloody mucous. Should the progress of the disease be arrested at this point, the process of repair will be by granulation. Should the peritonium become involved, it is evident, that the danger will be imminent from <sup>the</sup> known tendency of inflammation to spread in this order of membranes.

The inflammation in dysentery will terminate either in resolution or mortification - the former is indicated by an abatement of all the dysenteric symptoms, the discharges becoming natural - the latter by an abatement of the febrile symptoms, the extremities becoming cold, haggard countenance, the pulse small rapid and hard, exhaustion, purulent evacuations &c.



Ulceration is the result of mortification and when this occurs, if the patient recovers at all, some time will be required for the recuperative powers of nature to effect a repairation. If the ulcers are unhealthy or in other words there gets up an antagonism between the conservative powers of nature and the disease, the repairation will be slow, and constitutes what we term chronic Erysipelas.

In the treatment of this disease there are four morbid conditions, to which I have already alluded, viz. inflammation, vascular excitement, and deranged functions—generally torpidity—of the Liver and skin, and by these the remedies proper to be used are clearly indicated.

Of these the inflammation deserves precedence in making our therapeutical applications - for if this is lessened the equilibrium of the circulation will naturally be restored, and the liver and skin resume their natural functions.

Then what remedies will best accomplish these objects? Blood-letting would naturally suggest itself as an appropriate remedy - but if we listen to the experience of others, this is not so much of a curative means as we would suppose, authors generally agreeing that it is of less utility in this disease than in others of the phlegmian. However, there are circumstances under which it is of the utmost importance. We should not

bled the patient - because he has  
dysentery but, because the circumstances  
of the case demand its employment.

In the beginning of an acute attack,  
when the inflamm<sup>m</sup>atory action runs  
high, when the patient is plethoric,  
having previously enjoyed good  
health - venesection is indispensable  
and may be carried with beneficial  
effects to a considerable extent.

Under these circumstances I  
would not hesitate to bleed the sec-  
ond time. By it the inflamm<sup>m</sup>ation  
may be reduced - the circulation  
equalized, and the portal con-  
gestion relieved. Although the  
remedy is capable of affecting so  
much good yet, it may be inju-  
diciously employed and productive



of the most-fatal consequences  
Local depletion is also of much  
importance and this can be done  
very effectively by the application of  
some dozen leeches around the anus  
and keeping up the flow of blood by  
warm poultices. Keeping in mind  
the pathology of this disease, we can  
readily perceive, that depletion from  
a part so near the diseased structure  
and so intimately connected with  
it - by anastomosing vessels, would  
be productive of the greatest-benefit

Purgatives come next in order of  
practice. They carry out of the in-  
testinal canal all irritating <sup>matters</sup> which  
may thus be lodged, the presence  
of which have so much to do in  
keeping up a train of morbid action.

They act beneficially, also, by de-  
pleting the portal system and there-  
by relieving the distended capillaries.

For most of the cases occurring spo-  
radically, at all seasons of the year,  
a dose of Castor oil and turpentine  
combined will be sufficient to ef-  
fect a cure. In cases of a severer  
grade I would adopt a different  
course. Calomel will now be the  
heroic remedy. Fifteen grains may  
be given in a dose, and this should  
be followed by a mild purgative  
in about ten hours if it does not  
act well itself. This will produce  
a free evacuation from the bowels  
and probably excite the Liver to its  
normal secretory function. Did  
I give Calomel after this it would

be for its specific action on the liver-  
to excite an irritation in that viscus  
and thereby, deplete from the vena  
portarum. When this treatment  
is kept up for any length of time  
it's action ought to be watched, as a  
severe ptyalism may be produced, not  
necessarily. I say, unnecessarily, because,  
the good effects of the medicine  
may be obtained without carrying  
it to the extent, that would produce  
it. There is another purgative of which  
I will speak before dismissing this  
part of our subject and that is  
Epsom salts. The high repute in which  
this remedy is held by a great  
many practitioners demands for it  
a place among the particular  
purgatives for this disease.



Perhaps any of the saline purgatives will answer as well. The object of it is, I suppose, to change the nature of the evacuations to excite watery discharges from the bowels and thereby relieve the distension of the engorged vessels. They take from the circulating <sup>fluid</sup> its watery elements and thus deplete the portal system more effectively than could be done by venæ-section.

The next class of remedies of which I would speak are diaphoretics. Such is the intimate relationship existing between the intestinal canal and the skin, that an increase of secretory action in the one is attended with a diminution of the same action in the other and.

there being a determination to the internal organs in this disease, to excite diaphoresis would be to restore in a great degree the equilibrium of the circulation. A combination of Opacac with some other medicine is well calculated to effect the end in view. The Dover powder administered in doses of 2 or 3 grains every hour or two, is an excellent remedy to effect this object.

The next therapeutical application of which I will speak is Emema. The Nitrate of Silver is the most valuable. From the known benefit derived from the application of this remedy to ulcerated mucous surfaces generally, we could naturally infer its utility in

this disease. The rationale of its action is this. It stimulates the dormant irritability of the part, and restores contractility to the distended capillaries and thereby establishes an effusion of the thinner elements of the blood, amounting virtually to a depletion. The essence should be strong, containing about 10 grains of the nitrate of silver to the ounce of distilled water. A grain or two of the sulphate of Morphin may be added. We should endeavor to secure the immediate application of this to <sup>the</sup> inflamed surface and this can best be done by means of a glass syringe and gum elastic catheter introduced high up, even beyond the inflamed surface if possible, and



withdrawing the instrument - as we  
make the pressure. This may be used  
with benefit - throughout - the course  
of the disease.

The practice of using opiates and  
astringents - in this disease is not only  
useless, but - productive of the greatest  
harm. They are resorted to, to arrest -  
the discharges. I regard these as the  
working of the vis medicatrix, nature  
and therefore beneficial, and, that  
attempts - to check these discharges  
would be but - to thwart - the already  
crippled powers of nature. Neverthe-  
less, did I think them necessary at  
any time in the progress of the disease  
I should not - hesitate to use them.

When the disease assumes the chronic  
form, I would use the same remedies

that I have recommended in the acute stage. Calomel and Opium given in broken doses, with the Nitrate of silver & Opium will be sufficient.

At first food will be unnecessary and the patient will generally loathe it; but in the latter stage it will be necessary to sustain the exhausted powers. Unleavened bread and meat of some small animals as of birds &c, will be sufficient. This should be allowed only in small quantity. Not much at any one time should be allowed, and not much altogether. I have not space to speak of complications. They should be treated on general principles.

Robert A. Warnock

January 13<sup>th</sup> 1855