

AN  
INAUGURAL DISSERTATION

ON  
*Acute Dysentery.*

SUBMITTED TO THE  
PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY  
OF THE

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FOR THE DEGREE OF  
**DOCTOR OF MEDICINE.**

BY  
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OF  
*Pontiac.*

*M.D.*  
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My

Wm. L. Dowling, M. D.

To whose masterly expositions of the  
Theory and Practice of Medicine.

I am indebted for whatever knowledge  
I may possess on that subject and

Whose noble endowments of heart

As well as his transcendent

Genius entitle him to the

Highest consideration

Of the Medical

Profession

These pages are most respectfully

Inscribed

By

The Author

# Acute Dysentery.

The disease of which we propose to write is, chiefly interesting to us as medical men, on account of its extensive prevalence, the frightful mortality with which its epidemics invasions are sometimes attended, and the contrariety of opinions entertained by different authors, in regard to the treatment best adapted to its cure. It has prevailed in all ages and ravaged almost every clime.

No age, sex or condition can claim immunity from its impartial grasp.

The sturdy New-England farmer and  
the wealthy Southern planter, the  
"hardy tar" whose home is amid the  
rigging of his own good ship, and  
the brave pioneer, the echo of whose eye,  
as he opens the paths of civilization,  
startles the silent genius of the western  
woods, the mistress of the gilded pa-  
-lace and the bare-armed rustic  
beauty, the princely dealer in the  
"Silks of Shiraz" and spices of Arab  
the best," and the dirty scavenger  
that clears away the filth from his  
door, the "Slave of the dark and  
dirty mine" who toils beneath his  
masters lash to rifle the earth of  
"Full many a gem of purple ray  
Serene"; and the richly attired  
lady on whose vain bosom, or in

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whose costly tiard it glitters, the old man trembling on his staff, and he of the burly frame and stalwart arm; the young mother when "For the first time she feels her first born's breath" and the infant peering in its nurse's arms, all, all are alike subjects of the attacks of this ruthless destroyer of human life.

In every land where the enterprise of man has reared the monuments of his glory, or his folly, or built temples to his idols and wreathed their shrines with the flowers of his genius, or written upon their columns the incoherent records of his madness, from the "Catus bearing Nile" to the

lazy and turbid Selway; from the  
 bleak hills of Norway to the palm  
 groves of Acadia; from the  
 piney crags of Maine to the orange  
 orchards of Yucatan; from the  
 "ribbed sea-sand" of the Atlantic  
 coast to where the God of day dip-  
 -ping his broad rim in the  
 Pacific wave sheds his parting  
 glory on the foliage of Oregon's  
 western woods, has this

"Angel of Death spread his wings on  
 the blast

And breathed in the face of Man-  
 -kind as he passed."

Craving the  
 readers pardon for this, perhaps  
 unnecessary, rhetorical digression,  
 we descend to particulars.

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Dysentery, is defined by Dr Wood to be "inflammation of the mucous coat of the colon and rectum, characterized by small mucous, or bloody evacuations, gripping pains in the abdomen, straining at stool and tenesmus". Notwithstanding the seat and nature of this affection is well understood at the present day, much controversy has been had in past times among writers, on pathology with regard to its proper classification. Coelius, Aurelianus and other ancient writers, held it to be a rheumatic affection of the bowels; and this view has obtained among a few modern men of no mean celebrity of whom

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may be mentioned Akenside,  
Scott and Richter. Sydenham  
thought it was "a fever turned in"  
upon the bowels. Cullen makes  
contagion one of its essential  
elements, and classes it with the  
fevers. Sennert and his followers  
attributed it to the presence of a  
peculiar animalcule which  
he named *oculus dysenteriae*.  
Chapman and Caldwell of  
this country regarded it as  
primarily a gastric affection,  
and James Johnston believed it  
to be dependant upon hepatic  
and cutaneous disorder and  
derangement, while others  
look upon it as merely  
simple Colitis.



## Symptoms.

The disease is, generally preceded by pains in the bowels of a griping character, which are shortly followed by a diarrhoea or discharges of mucous, or mucous mixed with blood; and these are accompanied with straining, tormina and tenesmus. Severe cases are generally ushered in with a chill, sometimes distinct, at others amounting to no more than slight rigors, to which a febrile reaction succeeds. The tongue may be covered with a white or yellowish fur. Occasionally its appearance is nearly natural. The pulse in the beginning of the disease usually possesses all the

characters that indicate active  
 inflammatory action. The skin is  
 dry, and the patient emits a pecu-  
 -liar acid odor, so characteristic  
 that it has been called the dysenteric  
 odor. The calls to stool are frequent  
 and urgent, sometimes amounting  
 to twenty, thirty and even fifty a  
 day; but the evacuations are small  
 and consist of glairy mucus, re-  
 -sembling the white of an egg, but  
 a little more opalescent: and per-  
 -haps tinged or streaked with  
 blood. Occasionally lumps, resem-  
 -bling pieces of lard are passed.  
 Sometimes, almost pure blood is  
 discharged. Not unfrequently sm-  
 -all rounded faeces, called scybalae,  
 are discharged along with the morbid

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sections of the bowels. The bearing  
down, or tenesmus, is often exceedingly  
severe and annoying, sometimes so  
great as to protrude the rectum  
considerably below the verge of the  
anus, constituting prolapsus ani.  
But little of any feculent matter  
is passed after the initiatory diar-  
-rhoea has ceased, and absolute  
constipation exists, the bowels,  
perhaps being obstructed by spasm  
of the colon. There is usually some  
tenderness over the seat of inflam-  
-mation, which becomes greater if  
the muscular or peritoneal coat  
become involved in the disease.

As the disease advances the tongue  
often becomes dry, red and slick,  
the lip not infrequently rounded,

and the body narrowed, and thicker than natural. Sometimes, and especially where there is a typhoid tendency, the secretions of the mouth dry and harden upon the teeth and lips, and we have what are called sores. When the tongue and mouth present the appearances mentioned, the pulse, for the most part will be found feeble and frequent, the skin dry and harsh, or bathed in a clammy sweat, while the patient wears a look of anxiety and distress, or perhaps mutters broken sentences of low delirium. In malarial districts the disease generally manifests a tendency to periodicity, and not unfrequently there will be a

complete intermission of the fever and considerable subsidence of the other symptoms. These cases are apt to be attended with more or less biliary derangement, indicated by dark, bilious alvine evacuations.

Towards the decline of the disease, a yellow tinge of the icterica, and yellow coat upon the tongue.

The disease presents every degree of severity, from the mild sporadic case - that is so tractable, and attended with so little danger as scarcely to demand the interposition of Therapeutic means, to its frightful epidemic form, in which it sometimes spreads terror through whole districts of country, and becomes more destructive to armies than the sword of the enemy.

It is especially the pest of hot climates, but temperate regions have been ravaged by its fearful ravages. As it appears in the warmer latitudes, it is a much graver disease than we generally meet with it in temperate climates; so much so indeed that many writers regard it as a distinct form. We apprehend however that its greater severity is the principal characteristic that entitles it to that distinction.

Microscopy Post mortem examinations always reveal the evidences of high inflammation of the intestinal mucous surface. Sometimes the inflammation is diffuse and equal, or nearly so, over the whole of that portion of the bowel which is involved.

At other times we meet with patches of inflamed membrane, more or less elevated and softened, with sound and healthy spaces intervening. In other instances the glands and follicles scattered over the mucous surfaces of the colon and rectum, are the chief seat of the disease, and exhibit the evidence of their suffering by their prominence, and occasional ulceration. Ulceration however is not peculiar to the glands and follicles, for the membrane itself, in protracted cases, is often the seat of ulceration and sometimes of gangrene, by which considerable lengths of it are occasionally separated in the form of sloughs. It is from these abrasions also

that we sometimes have copious hemorrhage, generally of Menstrue, though now and then of Arterial blood. It is not uncommon to meet with constrictions of the bowels, especially of the colon, obstructing the passage of the faeces. Sometimes, the whole of the inflamed portion of the membrane is covered with a whitish <sup>lymph</sup> exudation, which when removed exhibits the surface beneath in fact.

The Colon and rectum are not the exclusive seat of the inflammation, for it frequently extends into the illium, and occasionally travels up the intestinal tract untill the whole length of illium, jejunum and duodenum are successively involved.



But this condition of the small intestines is not a necessary element of the disease, and when not a consecutive concomitant of inflammation of the large bowels constitutes what is called enteritis.

It is the inflammation always confined to the mucous coat, but sometimes extends to the muscular and serous tunics of the bowel, which is a very grave complication, especially when the latter is involved. Where the disease is protracted the mesenteric glands are often found enlarged and softened, but seldom in a state of suppuration. In hot latitudes the liver is often found greatly engorged and diseased; and hepatic abscesses in those regions are by no means rare.

Gangrene is more frequently observed in  
 adynamic or typhoid cases than  
 in other types of the disease; and in  
 such cases the mucous membrane, if  
 not found in a gangrenous condition,  
 usually presents a dark purple, or  
 livid appearance bordering upon it.

Ætiology.

A predisposition to dysentery  
 is engendered by the prolonged influence  
 of heat, whereby the excitability of the  
 mucous membrane of the bowels is  
 augmented, the skin relaxed and  
 the functions of the liver disordered,  
 rendering the system much more  
 susceptible to the effects of cold.  
 When such a state of the functions  
 and organs exist, causes which im-  
 -duce a different condition of the bowels

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would be innocent, are often suffi-  
-cient to bring on a dysentery. For  
instance, the disease is common am-  
-ong Soldiers who are exposed to the  
heat of the sun during the day,  
peradventure in a fierce struggle,  
or a forced march, and then  
live in the open air at night.  
The reason of this is simple. The  
action of the skin is suddenly ar-  
-rested, the fluids of the body receive  
a centrifugal tendency, the liver  
spleen, and other visera are congested,  
the portal circle becomes engorged,  
and as a consequence the blood is  
largely retained in all those parts  
that send their venous blood through  
that route to the heart. The same re-  
-mark is applicable to malaria in

The production of dysentery; for the pathology is essentially the same, notwithstanding the causes in the two cases are different.

Where a predisposition has been begun in the system by the agencies already mentioned, anything capable of an irritant action on the mucous membrane of the bowels, may excite and induce the disease.

Among these exciting causes may be mentioned unripe fruits, bad wines, the use of bad and innutritious diet, foul effluvia of decaying organic matter, whether vegetable or animal.

When it occurs as an epidemic its aetiology is inexplicable, except upon the hypothesis of some unknown,

but peculiar constitution of the atmosphere; and all that we can say is, that it is dependent upon the epidemic constitution of the air. Contagion is considered by some as a cause.

That it is occasionally associated with the contagious diseases, must be admitted, especially with some of the low forms of fever as they occur in the crowded cities of Europe; but otherwise we apprehend it is never contagious.

Malaria in this country is a very frequent agent in the production of the disease, probably more so than any other agent whatever.

When an epidemic tendency exists, it is by no means rare to meet with it as a complication of malarial fever.

Often this malarial element is lost in the gravity of the dysenteric symptoms; but the physician should not overlook it, as it requires a modification of treatment.

### Prognosis.

Our prognosis must chiefly be drawn from the urgency of the symptoms and the prevailing character of the disease. The degree of tenesmus, and the frequency of the calls to stool, are perhaps as correct indices to the chance of recovery as any other symptoms to which we can look. If the tenesmus be very painful, and continued, we can have no doubt of extensive mischief going on in the bowels. And when along with these symptoms, there are oedema of the mouth, and a dry glazed condition of the tongue, and buccal membrane, we have good

governed for an unfavorable prognosis.  
 Whenever the disease is associated with a  
 typhoid condition of the system, and  
 when it is epidemic, our prognosis should  
 be very guarded, as it is always a grave  
 disease under these circumstances. If  
 however, a low delirium, and a relaxed  
 state of the sphincter and come on, we  
 know that the patient is about to  
 "Shuffle off this mortal coil." If on the  
 other hand, the calls to stool become less  
 frequent and urgent, the tenesmus less painful,  
 the tongue moist and clean the skin soft  
 moist and pleasant, the evacuations  
 feculent and natural, and the patient  
 becomes cheerful, and has refreshing  
 slumbers, we may consider him on  
 a fair way of recovery.

Treatment. Our remarks shall be brief and as much to the point on this part of the subject as we can make them. Let us then take a case of uncomplicated flux, and what shall be done for it? Is the lancet to be used in such a case? This question must be determined by circumstances. If the prevailing type of disease be of an open and high grade, and especially if it be found that patients bear the loss of blood well, and the particular case on hand be violent, with high fever and a full hard pulse, we say unhesitatingly, bleed and bleed freely; but that under an opposite state of things the greatest caution must be exercised in the use of the lancet. It may be necessary in some cases to bleed the second time, but not many require it.



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We will be governed in our decision upon the propriety of a repetition of the remedy, by the effect of the first bleeding; if after that, the pulse continues hard and full, the skin dry and hot, it may be resorted to the second time. As in other acute inflammatory diseases, — we must bleed for effect, the pain must in some degree be relieved, and the fullness of the pulse be reduced.

But whatever may be our decision in regard to Menestition, we have nothing to fear from topical bleeding. Blood may be abstracted from over the seat of tenderness, either with cups or leeches, (the latter being preferable when they can be obtained) whether we do or do not use the lancet. From a dozen to thirty leeches according to the urgency of the symptoms, and the kind of leeches employed, may

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be scattered along the course of the colon  
and rectum. The Swedish leech draws  
twice as much blood as our American  
leech, and of course when the former  
are employed it does not require so  
many. The bleeding may be encouraged  
after the leeches have dropped off, by  
flannels wrung out of hot water and  
applied as hot as the patient can  
conveniently bear them. The leechings  
may be repeated every one, two or three  
days, according to circumstances,  
and the warmomentations may  
be kept up constantly, until con-  
-alescence is fairly established. A  
few leeches applied around the verge  
of the anus, are said to have a decidedly  
good effect. - Having bled the patient  
locally, or from the arm, or both the

question will occur, shall we purge him?  
 As a general rule purgatives, if judiciously  
 selected and properly used, are of much  
 service. Most authors advise that  
 mercury should enter into the com-  
 position of the purgative medicine,  
 many that it be given with opium and  
 ushered to fecal action. If mercury be  
 used at all, it only should be done in  
 the commencement of the treatment,  
 and we know of no better form than that  
 recommended by the learned and  
 ingenious Professor of Theory and Practice  
 in the University of Nashville. It is as  
 follows. ---

℞  
 Oil Hydrag.  
 Scammony, f℥iij.  
 Aloes a a ℥ss.  
 M. or for pills no. XX.

Three of these Pills may be given at once, and after the bowels have been well purged, and the patient properly re-  
 -ced by bleeding, we would give him a decided dose of opium, and keep him under its influence for twenty-  
 -four, thirty-six, or even forty-eight hours. This gives compression to the sys-  
 -tem. Lock up his bowels and give them rest. Should his fever rise during the time specified we would admini-  
 -ster the following mixture,

℞

	Caster Oil.	℥ss.
	Tinct Opium.	ʒtt x.
Mix.	Oil Turpentine	℥ss.

If the dose failed to move the bowels, we would repeat it every six or eight hours, until its action was obtained.

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So soon as the bowels were properly evacuated by this means, we would resort to the opium again, thereby giving the patient ease, and rest to the bowels; which we apprehend is as necessary in this affection as it is to give the eye rest in inflammation of any of its coats, - or to give the joint rest in acute rheumatism. Sometimes it may be well to administer anodyne injections; but they should be small or the rectum will reject them.

When properly administered, they are attended with capital results in relieving the tenesmus, and giving the patient comfort.

Perhaps no better medicine than opium can be given to restore the functions of the skin; and for this

purpose it may be given either in the form of clovers powder, or combined with a large amount of Opium, in half grain doses. When the inflammation has been subdued, if necessary, astringents may be given to restrain the action of the bowels. Kino, or Catechu answers an excellent purpose when the bowels are overactive, and the discharges thin and frequent, as is sometimes the case after the more violent symptoms have subsided.

We have simply indicated the general course we should adopt in the treatment of this troublesome affection. — Modifications of this general plan will be required in certain departures from the plain

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type of the disease. Where there is a periodical character given to it by the operation of malaria in its production, the administration of quinine will be required when the more violent of the symptoms have been subdued. Again in epidemic and typhoid cases extreme caution should be exercised in the use of the lancet; and in such cases it not unfrequently becomes necessary in the progress of the disease to support the patient with stimulants, such as quinine, or even wine whey, or weak brandy - tray. The diet of the patient at first should consist of the very blandest materials, and much restricted in quantity. A little beef tea, or mutton soup may be allowed, and as the disease

Subsides a small quantity of gruel, or rice water can be borne. A little later in the progress of the disease, rice thoroughly boiled may be given. The return to the usual diet must be very gradual and cautious.

We think the treatment we have so imperfectly sketched is about the best that can be adopted; provided, the proper modifications be made in particular cases.

For this reason we have refrained from giving the various plans of treatment in Uogue, and recommended by different authors.

We close this sketch with the hope that its many imperfections will meet



with the leniency due to a mad  
effort at authorship;

January. 31<sup>st</sup> 1857.

A. B. Howell,  
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Miss.