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AN

INAUGURAL DISSERTATION

ON

D Y S E N T E R Y.

INSTITUTIONAL

SYSTEM

2

AN
INAUGURAL DISSERTATION
ON
DYSENTERY.


SUBMITTED TO THE EXAMINATION OF
CHARLES ALEXANDER WARFIELD, M. D. PRESIDENT.

And the Medical Faculty


OF THE COLLEGE OF MEDICINE OF MARYLAND,

ON THE FIRST OF MAY, 1812.

FOR THE DEGREE OF DOCTOR OF PHYSIC.


By Corbin Amos.....of Harford County,

MEMBER OF THE MEDICAL AND CHIRURGICAL FACULTY OF
MARYLAND.


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1812.

TO
DOCTOR THOMAS E. BOND,
OF HARFORD COUNTY.

DEAR SIR,

It affords me the highest degree of satisfaction, to have an opportunity, in this public manner, to offer you my sincere acknowledgments, for the instructions which I received, from you, whilst I had the honour of prosecuting my Medical Studies under your direction, and for the many favours which you have conferred on me. As a public testimony of my respect and as a slender tribute of gratitude, allow me to dedicate to you my first Medical Essay. Of the politeness, with which you have always honoured me, I shall ever retain a grateful sense; and be assured, Sir, that no length of time or extent of distance, can ever lessen that real affection which is now cherished by

Your sincere friend

and former pupil,

CORBIN AMOS.

TO
DOCTOR HENRY HOWARD,
OF BALTIMORE.

MUCH RESPECTED SIR,

Permit me thus publicly to assure you of my grateful sense of the friendship and attention which you have on so many different occasions exercised towards me.

I also beg you, Sir, to receive this dedication as a slight expression of my respect; and to accept of my ardent wishes for your prosperity and happiness.

I am, sir, your

very affectionate friend

THE AUTHOR.

AN

INAUGURAL DISSERTATION.

THE name Dysentery is derived from the Greek words *δυσ* difficile, *εντερον*, intestinum, et *εσσι* fluo, and signifies a disordered state of the bowels, in which their functions are performed with pain and difficulty. It has been said to be liable to be confounded, with several other disorders of the bowels, such are Diarrhæa, Cholera Morbus, and Lientery. I conceive, however, that there are certain unequivocal symptoms of dysentery, which sufficiently distinguish it from all these affections.

No disease, embraced within the whole system of nosology, has more conspicuously engaged the attention of physicians, than dysentery. But although much has been written on this subject, and innumerable remedies for it have been recommended, we have still much to learn, both with regard to its nature, and cure.

HISTORY OF THE DISEASE.

The dysentery generally makes its appearance in this climate about the close of the summer or the

commencement of autumn, at which seasons the states of the atmosphere are favourable to the production of the remittent and intermittent forms of fever.

In general, for some time previous to the attack of the disease, the intestines are slow, affected by flatulency, and pains resembling those of colick. In other cases, however, though not so frequently, the disease is ushered in by an attack of diarrhæa.

In some cases before the bowels are affected, the patient labours under feelings of oppressive lastitude, and considerable indisposition to motion, with cold shiverings and other symptoms which indicate the approach of fever. In many instances a disorder, apparently a simple diarrhæa, gradually glides into the form of dysentery: but more frequently the patient is assailed by some uneasiness of the bowels, which prompts him to make frequent efforts to produce an evacuation from the intestines. After a few of the first attempts, little or nothing is voided, but an insuperable propensity to persevere in attempts to produce a stool, annoys the patient and constitutes what is called a tenesmus. As the disease advances, the griping which incites to efforts at dejection, becomes more distressing, and the tenesmus which follows them becomes more intolerable.

The pulse is either full and tense, not much increased in frequency; or, is frequent and even quick, though it is sometimes natural, both as to force and frequen-

cy.—In some cases it is depressed.—There is always more or less fever attending this disease, though not always discoverable, at its commencement, by the pulse.

The matter voided by stool, in this disease, whether it may have been of longer or shorter duration, is very various: a mucous matter sometimes is voided, without any blood; exhibiting that disease called by some, the *morbus mucosus* and by others, the *dy-senteria alba*: but for the most part the mucous discharge is more or less mixed with blood, but sometimes blood unmixed is voided in considerable quantity. Unless the disease be checked at this period, the griping continues to increase, and the tenesmus becomes more considerable. The fever also, which is mostly of the remittent form, increases—the stools become more frequent and painful, and exhale an exceedingly fœtid and offensive odour—no excrementitious matter is discharged, unless the patient be under the operation of a cathartic, and then it is voided in the form of hard lumps or scybala; after which, the pain, griping and inclination to go to stool are alleviated. This alleviation of pain is but of short duration; for the troublesome symptoms often return with redoubled violence, and small portions of matter of a membrane-like appearance which resemble the washings of fresh meat, are discovered among the stools, and have an exceedingly fœtid and nauseous smell; and white masses of a sebaceous appearance, which from their resemblance to suet, have been called *corpora pinguis*, are also occasionally discharged by stool. The stools

are sometimes voided intermixed with a sanious matter, and Dr. Cullen says, "it is probable that sometimes a genuine pus is voided;" but my opportunities have not enabled me to observe it.

As the dysentery advances, the symptoms above enumerated, increase in violence, the griping continues, the stools become more frequent and painful, and the tenesmus more considerable; and in some instances a considerable quantity of bile is thrown up by vomiting; though this symptom sometimes occurs at an early period of the disease: The pulse which before had been hard, tense, and full, now becomes small and frequent, while extreme languor and prostration of strength pervade the system; hiccough supervenes, the *alæ nasi* are drawn inwards, the eyes lose their accustomed lustre, and appear to be sunk in the head, the teeth and tongue are covered by a black crust, which collects again in a few minutes after being cleaned away. As the debility continues to increase, the pulse becomes more weak and frequent, and almost imperceptible; the stools become small, and more numerous, and are often passed involuntarily, accompanied by an intolerable fœtor. The pain which before was excruciating, now ceases for a few hours, and in some cases for a day or two before death.

The patients in general at this period are delirious, yet they sometimes retain their mental faculties to the end. They are restless and impatient of remaining in bed; at about the same time the act of deglutition is performed with difficulty, to which succeed a general mador or cold and clammy sweat, subsultus

tendinum and convulsive motions of the whole body, the extremities become cold, and the pulse insensible, when death affords relief to the victims of this cruel malady.

A strangury occasionally attends this disease, and a prolapsus ani sometimes takes place, which are affections very troublesome, both to the physician and patient. The former symptom may arise from the inflammation spreading from the rectum to the neck of the bladder, and the latter from the violent straining which attends this disease.

The irritability of the intestines is frequently so much increased, that food, taken into the stomach, whether liquid or solid, produces an immediate inclination to stool, accompanied by a sensation, as if what had just been swallowed were passing through the intestines.

Authors mention lumbrici or round worms as frequently appearing in dysentery. It is true that these animals are in many cases discharged both by vomiting and stool. This however is not uniformly a concomitant of the disease, and can only be considered as an accidental circumstance, which does not call for the exhibition of anthelmintic medicines. These worms are probably dislodged by the disorder of the bowels, and by the great change in the contents of the intestines.

A miliary eruption has been observed by authors to accompany this disease; this however is a rare occur-

rence, and is much more so since the introduction of the cold regimen, nevertheless, I would not assert that this symptom may not be, sometimes, occasioned by some acrimonious agent irritating the intestines, and thereby bringing the skin into consent.

APPEARANCES ON DISSECTION.

The dissections of *Dr. Cleghorn*, *Sir. John Pringle* and others, shew that there is no part of the alimentary canal, which has not, at one time or other, been found greatly affected.

Dr. Cleghorn, in his observations on the diseases of Minorca, when treating of the dysentery, says "upon opening the bodies of the dead, I have constantly found the great guts either entirely mortified, partly inflamed, or partly mortified; in many I have seen schirrous tubercles straitening the cavity of the colon in several places: in a few there were small abscesses in the cellular membrane of the peritonæum, contiguous to the colon and rectum; sometimes the small guts were perfectly sound in appearance, but more frequently the lower part was inflamed, the convolutions being often preternaturally connected to each other by membranes, as the lungs sometimes are to the pleura. In two people the omentum was almost intirely wasted, the small remains of it being quite black; while purulent water was found in the cavity of the abdomen. In several it was inflamed, and adhered both to the guts and peritonæum. For the most part the gall-bladder was full

of dark bile, and the spleen more or less in a putrid condition.*''

Richter † observes, 'in giving an account of the dissection of a young lady who died of a dysenteric affection, that he found the large intestines gangrenous.

Pringle || gives an account, of the dissections of the bodies of some patients who died of dysentery, which was epidemical, in London, in the autumn of 1762, where, besides the common appearance of the rectum and colon, he observed, on the inside of the lower part of the colon, and on the upper part of the rectum, a number of small tubercles or excrescences, which resembled the small-pox, of a flat sort, differing from them in this, that they were of a firm consistence, and without any cavity.

The mesenteric glands may be affected in this disease, either by inflammation being extended to them, from the intestines, or by acrid matter, taken up by the absorbing vessels, inducing inflammation in them, which may be communicated to those glands, through which the lacteals pass in their course to the thoracic duct. The wasting of the body, called marasmus, which sometimes takes place in protracted cases of dysentery, and which probably depends chiefly on the imperfection of the processes of digestion and absorption, consequent on the disordered state of the stomach and absorbents, may perhaps be in part attributable to another cause, viz.

* Diseases of Minorca, p. 227.

† Medical Observations, p. 103.

|| Diseases of the Army, p. 251.

As the glands become indurated, the chyle will be in some measure obstructed in its passage through them, and consequently the body will not receive its accustomed quantity of nourishment, or what is equivalent to the matter expended in the performance of its functions; the natural effect of which will be, that the body will waste away, and occasion the phenomenon termed marasmus. This idea is countenanced by the dropsical affections that so frequently follow long continued dysenteries. That the obstruction of these glands is in many instances, the cause of dropsy, is evident, the lymph being incapable of passing through them, is deposited in the different cavities and cellular texture of the body constituting dropsical effusions. The chronic diarrhæa following dysentery depends, no doubt in some cases upon the obstruction of these glands, although in others, and more frequently, it is correctly attributed to an excessive or morbid irritability of the intestines.

DIAGNOSIS.

There are three diseases with which the dysentery may possibly be confounded; to wit: Diarrhæa, Cholera Morbus, and the Hæmorrhoids. The discrimination however, between dysentery, and the above-mentioned diseases may be made without much difficulty, by attending particularly to the following circumstances. In the diarrhæa, the alvine discharges are generally copious, consisting chiefly of natural fæces; and the disease is for the most part accompanied by very little fever. In the dysentery, the natural fæces are, at

least for some time retained, and when they are evacuated, appear in small hardened masses; it is attended at the same time with a considerable degree of fever, severe griping and tenesmus, and the stools are for the most part extremely fœtid. Tenesmus sometimes occurs in diarrhæa, but it is by no means so violent as in the dysentery.

In the Hæmorrhoids there is commonly no tenesmus, the blood is generally discharged at the first effort, and the fæces follow, where there are any to come. Whereas in dysentery the blood follows whatever else is discharged; dysentery, moreover, prevails at particular times of the year, being usually accompanied by fever; and, in it the blood voided is seldom pure, but is mixed with purulent, frothy, fœtid matter, and attended with severe griping, and a very painful tenesmus. Where there happens to be some inflammation in the rectum, in Piles, a teneſmus may occur, and then the circumstance of the blood coming first is almost the only criterion by which we can distinguish between the two diseases.

The dysentery may be distinguished from the Cholera Morbus, by its longer continuance, and by the alvine discharges having a more fœtid smell, and the dejections being attended by a more painful tenesmus; also by a more violent and frequent vomiting, which attends the Cholera, and by the Cholera being seldom accompanied by fever.

PROGNOSIS.

Perhaps there is no disease, that requires more attention, and greater diligence, on the part of the physician, than that of which I am at present treating. Although in a few instances, where the attack of dysentery is very mild, it may cease spontaneously; yet in very many cases, unless properly treated in the early stage, it proves fatal to the subjects of it.

Dysentery prevails occasionally at all seasons and in all climates, but is most common and most fatal, at the seasons and in the climates, which are most favourable to the production of intermittent and remittent fevers. In general the dysenteries of our climate may be cured by early attention, in many cases they yield to a few doses of cathartic medicines. But we learn from writers, and from physicians who have practised in warm climates that the dysentery in some of the tropical countries attacks with an excessive violence and proceeds with extreme rapidity to a fatal termination, notwithstanding the early and judicious application of the most approved plan of cure. In those climates as well as our own, dysentery is generally much more manageable when it appears in sparse or sporadic cases, than when it assails as an epidemick. These circumstances should therefore be taken into consideration when we are about to make a prognosis in a case of dysentery. It may also be proper to observe that the age, and habit of the patient are always to be attended to. The dysentery, as well as most other diseases of the intestines, is particularly mortal to persons far advanced in life, and to children.

If when called to a patient, at the commencement of the disease, we find that the stools are copious, consisting in part of natural fæces, and unaccompanied by any considerable discharge of blood; if the pain in the bowels, nausea, and vomiting, are moderate, and if the strength of the patient be not much diminished, and the appetite good; we may calculate upon a favourable issue. But if, on the contrary the stools, have become smaller, and are more fœtid, in proportion as their number is increased, and if the griping, and tenesmus are more violent and are accompanied by delirium, and the pulse is weak and quick; much danger is to be apprehended. If singultus comes on in the latter end of this disease, with great prostration of strength, and cold extremities, and the stools pass away involuntarily, are of a very fœtid smell, and of a dark colour; we may expect an unhappy result.

Before we proceed to treat of the remote causes of dysentery, it may not be improper, to make a few observations concerning the connexion of dysentery with the intermitting and remitting fever. Perhaps Dr. Sydenham only of all the physicians of his time entertained a correct idea of this disease. That great physician, when speaking of the dysentery, says, "The dysentery is nothing but a febris introversa, or a fever thrown upon the bowels;" which in my opinion is a very just observation, and indeed, the truth of it has since been established by innumerable authorities. Mr. John Hunter, in his book on the diseases of the army in Jamaica. says, "there subsists an intimate

connexion between the remitting fever and dysentery, in this island ; the one frequently changes into the other, and the two diseases are often complicated with various degrees of violence. In some cases dysentery ends in the remitting fever ; though it oftener happens that the fever terminates in dysentery..”*

“Dysentery, says *Reid*† is so intimately connected with remitting fever, that some late writers have supposed it to be the same.” He further adds, that it arises from the same cause, and, according to his late mode of treating it, he used the same remedies, and with success. Petechiæ are sometimes found in bad cases of dysentery, and some few patients have a universal yellowness of the skin ; which symptoms are common in fevers.

In the year 1797 an inflammatory dysentery raged at Fell’s Point in June and July, while the weather continued wet ; but in August when the rains had ceased, the intestinal form gradually declined, and the epidemick assumed the character of a malignant yellow fever. For two or three weeks the symptoms of the two diseases were so intermingled, that either name would have applied equally well, to the assemblage of symptoms, in almost every case.

Cleghorn‡ observes, that from the great similitude that exists in many respects, between the tertian fever and the dysentery, he was induced to treat them in the

* Page 218.

† Diseases of the army. p. 50.

‡ P. 5. 265.

same manner. He further adds† “ the tertian fever, cholera morbus, diarrhæa, and dysentery, are frequently epidemics ; there being a near alliance between all these diseases : these frequently put on tertian periods, and they change sometimes in one, and sometimes in the other : a tertian is sometimes changed into a dysentery, and sometimes a dysentery changes into a tertian ; and when one of these diseases is suppressed the other often ensues.”

Wade || is of opinion, that fevers and dysentery, are ailments of a kindred nature, prevented and cured in the same manner ; and that they do, in every case, arise, in those climates, from the bowels and their contents.

Zimmerman‡ in his description of the dysentery in Switzerland, in 1765, observes, that there existed a great connexion between dysentery and putrid fevers.

Jackson § observes, that in the first stage of the yellow fever, symptoms occurred which would lead the physician to conclude that it was a dysenteric affection.

Sir *John Pringle** says, “ it was observed, that those who were seized with the dysentery, usually escaped the fever ; or, if any man had both, it was alternately ; so that when the flux began, his fever

† P. 134.

|| On the diseases of the East Indies, p. 130.

‡ In his treatise on dysentery, chap. 2.

§ Fevers in Jamaica, p. 179.

* On diseases of the army p. 59.

ceased, and when the former was stopt, the other returned ; whence it appeared, that tho' the two distempers were of a very different form, yet they proceeded from a like cause."

Many more authorities might be adduced to shew the intimate connexion between dysentery and the bilious, intermittent and remittent fevers ; and also to shew the correctness of Sydenham's idea, when he considered the disease in question, a *febris intro-versa*, or a fever turned inwards upon the intestines ; but I presume those already adduced will be sufficient.

REMOTE CAUSES.

Many observations conspire to render it highly probable that the remote causes of dysentery are essentially the same with those of intermittent and remittent fevers, differing only in degree or modification. In support of this opinion it may be remarked, that the dysentery seldom appears, except in situations where both bilious intermittent and remittent fevers prevail, and that they frequently change into it : I shall therefore consider miasmata, or the elastic fluids arising from marshes, when acted on by the intense heat of the sun, as the remote cause of this disease, as well as of intermittent and remittent fevers. An atmosphere that is impregnated with miasmata, may affect the system of such persons as are exposed to its operation by entering the lungs, there mixing with the blood, and thus exerting its influence on

the living system ; as the blood passes in its circulation, it may impart to the alimentary canal a portion of the deleterious matter which it had taken up—or the miasmata may perhaps be blended with the saliva, and thus be swallowed. This noxious fluid may also be absorbed from the atmosphere, by the numerous absorbing vessels spread over the whole surface of the body, in the same manner when applied to the skin, as mercury, and other substances are taken up by these vessels. But in what manner miasmata produce their effect on the body, is not known. We know only, that there do arise certain noxious vapours, from marshes and stagnant waters, which have been found from long and attentive observation, to be the principal source of all the diseases, to which those countries, in which they are found, are so very subject, and which have obtained the name of marsh miasmata. But what the real nature and properties of these miasmata may be, what the various circumstances which affect their condition, and, on what their strength and noxious powers depend, are subjects, which must be left to be elucidated by the future improvements of this intricate part of medicine.

That by these miasmata, certain chemical combinations are formed with the fluids in the human body, destructive to the principle of life ; I think very probable, and presume, no one will deny it, who has seriously thought on the subject ; in no other way can the sudden derangement of health produced by them, be accounted for. The mechanical effects of miasmata, must from their very nature, be imperceptible, and

though we are utterly ignorant of the direct chemical changes or processes, yet it may be inferred, with more probability, than any other supposition, that they really exist. The first evident effects of miasmata on the body are, languor and debility, in many important parts, particularly the stomach and intestines; as is evinced from the anorexia, nausea, vomiting, and other symptoms of debility, that so frequently occur in diseases produced by them.

Much might be said in support of miasmata being the remote cause of the disease under consideration, but to take further notice of it here, would extend this dissertation far beyond its intended limits. I shall therefore only observe, that it appears to me that miasmata, or the particles of elastic vapours, arising from the earth, in the condition called marsh effluvia, and acted on by a very vigorous sun, are the remote causes of the dysentery; and that they may enter the human system, either by the vessels of the skin, or by the lungs, or mixed with the saliva; that they there produce several morbid phænomena or derangements, probably by forming new combinations with the subtle elements of the fluids and solids, and thus become noxious and destructive, by disordering the peculiar organization which produces the living condition.— But what are the chemical qualities of that principle, in a vitiated atmosphere, which constitutes miasmata, or what is the same thing, which produces this disease, I leave to those philosophers to determine, who, of late, appear to be cultivating this branch of science, with a zeal and success, which promise great future benefit to medical knowledge.

EXCITING CAUSES.

It is not in every disease that the exciting cause is to be distinguished from the remote cause; for after the remote cause shall have produced debility, which is the predisposition, a reaction, or disease will arise in certain cases, though no exciting cause be superadded. This, however, is not generally the case, for an exciting cause is most commonly required.

The exciting causes of this disease, therefore, are of various kinds; such as excessive fatigue, either of body or mind, great heat, intemperance in the use of ardent spirits, &c. But from the concurring testimony of all those physicians who have written on the dysentery, it appears that cold alternating with heat and moisture is the principle exciting cause of the disease.

Dr. Zimmerman says, "in general it is not the cold that follows on heat, and remains, but that which succeeds heat, and give place to it by fits, that is considered as the cause of the dysentery." Hence the poorer class of people, and particularly soldiers, who are much exposed to the sudden vicissitudes of the weather, are often the unhappy subjects of this disease.

From the observations of *Dr. Moseley* and *Sir John Pringle*, it appears, that there is not a more ready way for soldiers to be affected with the dysentery, than by exposing themselves to the cold of the evening when they are heated after a long march, or by drinking cold water when under a profuse sweat. *Dr. Moseley* says,

“It is the soldier’s life to be much exposed, and it is his custom to be careless of himself; when he is fatigued, or heated, he hastens to cool himself in the breeze, or night air, and perhaps throws off his clothes, and often lies down and sleeps in that condition. If he is wet, he dries his clothes, linen, and skin together. By these means, perspiration, the great fountain of health in hot climates, is suddenly stopped, and febrile strictures occupy the whole surface of the body.”

Dews or fogs, wet beds, wet clothes, together with cold, are exciting causes of the dysentery. This is sufficiently proven by *Sir John Pringle* in his book on the diseases of the army, who observes, “that no epidemic ever ensued from the greatest heat, till the perspiration was stopped by wet clothes, wet beds, dews or fogs.” ‘In the campaign 1743, though the weather continued long hot, yet we had no great sickness, till the men lay wet after the battle of Dettingen; and then the dysentery immediately appeared.’ ‘Again’ he continues, “in the year 1747 the summer was likewise hot, but without any bad effects till towards the end of August, when the nights growing cool, the dews, and night fogs occasioning a stoppage of perspiration, brought on the same distemper.”*

He also says, from the 20th of July till the 10th of September, the weather was sultry; and till the middle of August, the nights were equally warm with the days, during which time there was no appearance of the dysentery; but after the middle of August, though

the days were still hot, yet the nights began to grow cool, and the dews to fall; and from these interchanges the dysentery soon took its rise.* The same author further adds, that in the beginning of October, we had a great deal of rain, and such as were exposed to it, were seized with the dysentery.† *Dr. Hillary* says that the dysentery returns constantly every year in the West Indies with the periodical rains; hence we may conclude from the authorities above enumerated, that cold and moisture operating on the body previously debilitated by miasmata, are the principle exciting causes of the disease.

The effluvia arising from the excretions and more especially the fæces of dysenteric patients, in confined apartments, may act as exciting causes of this disease. These effluvia however have received the name of contagion, on which subject authors differ very widely in their sentiments.

Dr. Cullen thinks, that dysentery often evidently arises from the application of cold, “but” says he, “the disease is always contagious; and by the propagation of such contagion, independent of cold, or other exciting causes it becomes epidemic in camps and other places.” “It is, therefore,” he further adds “to be doubted, if the application of cold does ever produce the disease, unless where the specific contagion has been previously received into the body: and, upon the whole, it is probable, that a specific contagion is to be considered as always the remote cause of this disease.”

* Page 55—56.

† Page 57.

Dr. *Moseley*, on the contrary, who resided for many years in the West Indies, where the dysentery was extremely prevalent, observes, that he never saw an instance in which the disease was communicated by contagion. "As to contagion," he says, "from infection in the dysentery, I must confess, I never saw an instance of it; neither do I believe there is any such thing."

Dr. *Zimmerman*, in his treatise on the epidemic dysentery that appeared in Switzerland in the year 1765, says, "In general, it appeared to me, that our dysentery became contagious purely through nastiness, and the crowding many people together in a small space, but was by no means so of itself, for though many were attacked by it at once, this seemed to proceed from a more universal and widely different cause, which operated at once on every one."

Should the bile, or the use of fruits, be enumerated among the exciting causes of the dysentery? This subject has been much contested among physicians. I am, however, induced to believe, they should not; or, at least, I have never met with an instance of the disease which appeared to me to be attributable either to bile or fruits.

PROXIMATE CAUSE.

The proximate cause of this disease, like that of many others, must yet remain involved in some obscuri-

ty. *Dr. Cullen's* idea of a spasmodic constriction of the colon, being the proximate cause of this disease, seems better adapted to an explanation of the phenomena of colic, than those of dysentery. A constriction of the colon may take place, but it is probable that this constriction is an effect or symptom, and not the proximate cause. *Dr. Rush* pronounces morbid action to be the proximate cause. He considers the proximate cause and the disease to be the same. To me it does not appear just, that any one operation in nature should be considered both the cause and effect of itself. If the proximate cause of the disease and the disease itself be the same, it is equally as rational to conclude, that the latter is the cause of the former, as the former of the latter.

This disease seems to consist in an increased secretion of the vessels of the intestines, more especially the large guts, and if I were to adopt the sense in which *Drs. Cullen* and *Rush* use the term proximate, I should consider this as the proximate cause. If it were proven, which has never been done, that a spasmodic constriction, of the colon takes place, it must be the consequence of a previous irritability of the parts. But although the hypothesis, of a spasmodic constriction, of the colon, being the proximate cause of the disease in question, be sanctioned by the most celebrated authority, yet to me, it appears entirely unsatisfactory. For as well might we consider the dry tongue, thirst, pain in the head, and other symptoms, which accompany a paroxysm of intermittent fever, as causes, as to consider the constriction of the colon,

a cause of the dysentery. It may be remarked, that a large majority of the cases of dysentery come on with the usual symptoms of fever; and the constriction of the colon (if it takes place at all) does not take place for a considerable length of time afterwards: whereas if this constriction was the proximate cause, it should regularly appear at the formation of the disease; the contrary however is almost uniformly the case.

I therefore object to the proximate causes adduced by Drs. *Cullen* and *Rush* as being of no practical utility. But while I thus offer this objection, I must confess myself unable to suggest a theory perfectly satisfactory even to myself.

OF THE CURE.

The dysentery is a disease over which the physician has more controul, or which admits of more certain cure, upon a speedy application of proper remedies, than most other diseases to which man is subject. This is a truth established by almost every writer on the complaint; and confirmed by the concurring observations of physicians in many different parts of the world. The contrary, however, has likewise been ascertained, that there is no disease more difficult of cure, when not attended to, or when proper remedies are not administered in its early stage.

It is evident that the cure of the dysentery must in a great measure be regulated by the violence and du-

ration of the symptoms which have been enumerated above. When the disease assails the system in a mild form, and is in its incipient stage, an assiduous use of gentle purgatives, will generally be found sufficient for its removal. But when its attack is accompanied with violent and urgent symptoms, it will in general require our best concerted plan and most efficacious remedies to arrest its rapid progress; The remedies are,

FIRST—BLOOD-LETTING. In the mildest stage of this disease, when very little, if any deviation from a healthy action is discoverable, in the pulse, and it is unaccompanied by severe pains, blood-letting will seldom be necessary. But if on being called to a patient at an early period of the disease, we find the febrile and inflammatory symptoms considerable, and accompanied with much pain; blood-letting should be immediately resorted to, and repeated as often as the urgency of the symptoms may require. The many painful symptoms attending this malady, as the tormina, tenesmus, and discharge of blood, which seem to derive their degree of violence, from the increased action prevailing in the sanguiferous system determined to the intestines, are more instantaneously removed by this remedy, than by any other means we can employ. The quantity of blood necessary to be taken at any one time, or the frequent repetition of venesection, must be entirely at the discretion of the physician, who by attending to the inflammatory symptoms present, the strength of the patient, and minutely observing the effects of this remedy, will not find it difficult to determine. Perhaps his best general rule will be, to use the

lancet, as long as the pulse continues full and hard, quick or tense, or while the tormina, tenesmus, and other painful symptoms continue to annoy the patient, provided his strength be not too much exhausted.

SECONDLY—EMETICS. Vomiting has been held as a useful remedy in this disease: and may be serviceable in the beginning of it, when the stomach is highly deranged, as is manifested by a loathing of food, nausea, and bilious vomiting. It would be most advisable to administer them of such a nature, and under such circumstances as to evacuate completely the alimentary canal. To answer this purpose tartar emetic and ipecacuanha combined, have generally been recommended, though I believe the emetic tartar, given alone in broken doses will prove equally or more efficacious. This medicine may be given in small doses, and repeated every half hour; and in this manner it may produce vomiting, and also act on the intestines and skin, so as to prove cathartic, and diaphoretic. This mode of exhibiting tartar emetic, may allow the first dose to pass the Pylorus and operate on the bowels, and thus our object will generally be accomplished. Tartar emetic may also be given in combination with some of the neutral salts. It has been given in solution with sulphate of Soda, with great advantage, and by its exhibition with this salt, it acts more effectually both as an emetic, and cathartic. Sometimes tartarised antimony, when the stomach is greatly disordered, may be administered with much benefit in combination with calomel, and in this manner it will vomit, and also operate gently on the intestines.

Emetics are also sometimes necessary in the latter stage of the disease, when the alimentary canal is in a weak and torpid state, purgatives, though they clear the bowels, often leave the stomach loaded with crudities, which cannot be brought away without an emetic. The chief objection to emetics in this state, is the weakness they induce in the system. The lassitude felt, immediately after their operation, is truly often distressing to patients who are much reduced. But the weakness produced, by emetics properly administered, in this disease is seldom permanent. More strength is gained in the course of a day, by the relief, which the stomach experiences, than is lost by the fatigue of vomiting; and the whole system is brought to a better condition.

THIRDLY—PURGATIVES. It is very rarely in the dysentery that purgatives may not be used with advantage; indeed its cure seems to depend in a great measure, upon a judicious administration of them. They appear particularly well adapted to its removal, by stimulating the intestines to relieve themselves of a vast accumulation of sordes, and by reducing the morbid excitement in the blood-vessels; they also relieve the gripping and tenesmus, which are among the most troublesome symptoms of this disease, and bring away scybala, which if allowed to remain constitute a constant and painful source of irritation. Those purgatives that procure sufficient evacuation, without being very stimulating to the intestines are to be preferred.

For this purpose the neutral salts have been employed. The sulphate of soda and sulphate of magnesia are the best.

The oleum ricini, when it has not become rancid, may be given with advantage. "It seems to be possessed of an anodyne quality, frequently easing the painful gripes as soon as taken, and seldom fails, when it agrees with the stomach, to procure copious evacuations."

Calomel. When the disease is attended by a highly considerable inflammatory action, or remains obstinate, this cathartic may be administered, with more benefit perhaps than any other contained in the *Materia Medica*. 'I affirm,' says *Dr. Richter*, when treating of the cure of the dysentery, 'that no purgative operates so powerfully, and at the same time so gently as calomel. It even appeared to me to have an essential effect on the disease itself; most purgatives increase the pain; calomel frequently diminishes them remarkably.' Calomel may be administered, with much advantage, either alone or combined with Jalap or Rhubarb; but when the stomach is much disordered, or very irritable, it may be given alone with more satisfaction, as it is received more kindly by the disordered stomach, than any other cathartic medicine, with which we are acquainted. This medicine may also be given combined with opium, with the most salutary effects, when the disease has resisted the ordinary remedies, and it becomes necessary to give an anodyne, in order that the patient may obtain rest. Exhibited along with opium, it is particularly serviceable in obstinate cases of dysentery in which it is deemed proper to excite a salivation. Producing a slight soreness of the gums or a gentle salivation is an almost certain cure of this disease.

FOURTHLY—SUDORIFICS. This class of medicines should not be administered until the inflammatory diathesis of the system has been previously reduced by bleeding and purging. For while a high degree of inflammatory action prevails in the system, it is raised above the action of diaphoretic medicines; and in this situation it is extremely difficult to produce a diaphoresis: and were they administered under those circumstances, they would rather aggravate than relieve the disease.

In administering sudorific medicines, we should employ those of the least stimulating nature; and care should be taken, that the patient be not exposed to cold, from having frequent occasions to rise to stool. Small doses of tartarised antimony may be given every hour or half hour, and if it should operate too much by the bowels, a small portion of opium may be combined with it. Ipecacuanha, James' powder, and sometimes Dover's, together with antimonial wine, may all be administered occasionally in small and repeated doses, with advantage. But the most efficacious diaphoretic medicine that I have ever given is calomel. Perhaps this medicine acts more universally on the extreme vessels of the surface, or occasions a greater discharge from the body, by insensible perspiration, than any other that has ever been administered. It should be given in doses proportioned to the urgency of the symptoms, either alone or combined with opium according as the case may require, nor need we fear its producing a salivation, for under such circumstances, it is productive of the most salutary effects. And in very urgent, or ob-

stinate cases, together with the internal use of mercury, the ointment should be used externally, so as to bring on a slight salivation. I say a slight salivation because it is unnecessary, or even improper to produce any more than a soreness of the gums, or a gentle ptyalism, which generally effects a cure.

Dr. Clark,* speaking of the use of calomel in the epidemic dysentery, which prevailed at New Castle in the year 1783 says, "I was called to several cases in private practice, which had resisted the common treatment; and attended sixty patients belonging to the dispensary. Calomel in almost every instance in which it was exhibited, soon subdued the disease, or reduced it to the nature of a simple diarrhœa." He further observes, "By an inconsiderable quantity of mercury, the gums became tender; in consequence of which, the gripes and tenesmus were instantly relieved; natural evacuations followed; and health was speedily restored, without the assistance of any other medicine."||

FIFTHLY—OPIUM. The use of this medicine in the dysentery, is very much recommended, and great dependence has been placed upon it by some physicians, as the chief remedy for its cure. Sydenham has trusted the cure of a number of cases entirely to this medicine. But though we cannot doubt upon the authority of so great a man, that some slight cases of this complaint have been cured in this manner; yet I will venture to

* On hot climates, p. 343.

|| Page 344.

say, that opium in the dysentery, is seldom or never proper, until by the previous use of purgatives, the bowels have been evacuated.

Opiates are only proper after the inflammatory action has been subdued, or when from the violence and continuance of the disease, the patient has become so debilitated as to render further depletion improper, and when the pain, griping, and tenesmus are distressing. If the stomach under such circumstances be too weak to bear opiates, they should be thrown up the rectum.

SIXTHLY—INJECTIONS. When there is much pain, griping, and tenesmus mucilaginous and oily injections are of particular service. They sheath the intestines, and defend them from the action of acrimonious matters, which they often contain, and by supplying the place of the mucous natural to these parts, afford great relief. They also assist very much by promoting a discharge of indurated fæces from the colon and rectum, which, by their stimulus, tend greatly to aggravate the complaint.

When the system has been much debilitated from the continuance of the disease. injections of a nutritious and cordial nature should be used; such as starch, barley water, and linseed tea combined with laudanum.

SEVENTHLY—VESICATORIES. These have been supposed to prove useful by causing a translation of the diseased excitement from a more important

part to one less important. The advantage has been attributed to the effect of producing a new action, although these suggestions are not entirely satisfactory, we must be content with them as we cannot more fully explain the fact. But before using them, the inflammatory action should be properly reduced. They should be applied to the abdomen, or near the part affected; but if from any circumstances, they cannot be conveniently applied there, they may be put on the arms, thighs, and ankles.

These are the remedies which I conceive to be proper during the first or inflammatory stage of the disease. But it sometimes happens after the most violent and inflammatory symptoms of the complaint have been removed, that the discharge from the bowels continues merely from a relaxation of the intestines. In this case such medicines as will put a stop to the evacuation, by their tonic and astringent powers, ought to be used; of these, the Peruvian bark, gentian, columbo, and quassia may be used. But ipecacuanha, combined with opium in small portions seems preferable to any other articles, for besides the astringent effect of this composition, it will also act as a diaphoretic, for which reason it appears well adapted for the cure of this state of dysentery.

When the disease continues in the form of a simple diarrhæa, astringents, such as alum, kino, opium, oak-bark, red wines, ipecacuanha, chalk, acetate of lead, &c. may be advantageously employed. Should these not succeed vesicatories applied to the extremities will often have a good effect.

The acute dysentery sometimes runs into the chronic state, for the cure of which, the tonic and stimulating plan, together with opiates, is, in general, proper. But should these fail, a salivation should be resorted to, and here also vesicatories applied to the extremities will be found to be very beneficial.

The diet, it is evident, ought to be varied according as the state of the patient may require. When he is of a robust plethoric habit, or when the inflammatory action is considerable nothing of a very stimulating nature should be allowed. Soups are proper, particularly mutton soup, and generally articles of a mucilaginous nature, which may be more agreeable to the patient, ought to constitute the principal part of his diet.

The drink should be of the demulcent and mucilaginous kind, such as barley water, lin-seed tea, solution of gum arabic, rice water, thin gruel, &c. These taken in large quantities seem to sheath and defend the intestines from the action of acrid and irritating humours.

When the inflammatory symptoms have abated, and, the patient is much debilitated, a more generous diet should be allowed him, with good wine and water, care being taken that he eats or drinks very little at a time, until the stomach, and other digestive organs, have acquired their accustomed strength.

Pure air, together with gentle exercise, will also contribute much to give tone to the system, and restore the strength of the patient.

Before I conclude, permit me, Gentlemen, Professors in the College of Medicine of Maryland, collectively, and individually, to express the gratitude I feel for the advantages I have derived from your valuable lectures; and to breath a wish that your laudable exertions may be crowned with success: And that the College founded by you may meet with an encouragement beyond your fondest anticipations.



ERRATA.

Page 11, 18th, line and elsewhere for *fætid* read *fetid*. p. 11, l. 1, at bottom for *ccasionally* read *occasionally*, p. 14, l. 3 for *symtom* read *symptom*, p. 16, l. 1, at bottom for *faces* read *facies*, p. 19, l. 3 for *faces* read *facies*, p. 26, l. 18, for *afer* read *after*, p. 29, l. 3 from bottom for *symtome* read *symptoms*, p. 30, l. 16 for *coutroul* read *control*, p. 34, l. 16 for *pa n* read *pains*, l. 18 for *Rhubard* read *Rhubarb*, l. 5 from bottom for *Exhibibited* read *Exhibited*.

Book taken apart. Leaves
deacidified with magnesium
bicarbonate. All leaves
supported with lens tissue.
Resewed on linen cords. New
all-rag end paper signatures.
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