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#### INAUGURAL DISSERTATION

ON THE

## DYSENTERY:

SUBMITTED TO THE EXAMINATION OF

THE REV. WILLIAM SMITH, S. T. P. PROVOST;

THE TRUSTEES, AND MEDICAL PROFESSORS

OF THE

COLLEGE OF PHILADELPHIA,

IN ORDER TO OBTAIN THE DEGREE OF

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# BENJAMIN RUSH, M.D.

PROFESSOR OF THE THEORY AND PRACTICE

OF MEDICINE,

IN THE COLLEGE OF PHILADELPHIA,

AS AN ACKNOWLEDGMENT OF MANY
FAVOURS RECEIVED.

THIS THESIS IS DEDICATED WITH THE UTMOST RESPECT,

BY HIS VERY HUMBLE SERVANT,

## CASPAR WISTAR, M.D.

PROFESSOR OF CHEMISTRY AND PHYSIO-LOGY, IN THE COLLEGE OF PHILADELPHIA,

THIS THESIS IS RESPECTFULLY INSCRIBED,

BY HIS MUCH OBLIGED FRIEND,

AND HUMBLE SERVANT,

DOCTOR EZEKIEL NEEDHAM,

PHYSICIAN, IN KENT COUNTY, DELAWARE,

THIS INAUGURAL DISSERTATION,

THE FIRST FRUITS OF MEDICAL STUDIES

BEGUN UNDER HIS CARE, IS, WITH

GREAT RESPECT, INSCRIBED BY

HIS MUCH OBLIGED

FRIEND AND PUPIL,

THE AUTHOR.

## INAUGURAL DISSERTATION

ON THE

## DYSENTERY.

### DEFINITION.

F the various definitions of the dyfentery given by nofological writers, none fo completely comprehends the principal fymptoms, or fo accurately distinguishes it from other affections, as that delivered by the illustrious Cullen.

According to him, it is a contagious fever, attended with gripings, tenefmus, and frequent stools, by which mucus and blood are discharged, while the natural fæces are retained.

## HISTORY of the DISEASE.

THE dysentery generally makes its appearance in the latter end of summer, or beginning of autumn, after great and long continued heats.\*

The first symptoms with which it commonly commences, are various affections of the alimentary canal. For a day or two the person is costive, and feels pains resembling those arising from colic: at other times, a purging is the first symptom perceived, but it does not excite much attention, and the disease steals on insensibly.

A fickness at stomach, attended with a bitter taste in the mouth, slatulence, gripings, and frequent but inessectual strainings, succeed; at the same time, the patient is affected with lassitude; or weariness on the slightest exertion, and also with chilliness, and violent pains in the back and loins: sometimes the invasion is more violent and sudden, the gripings accompany the purging from the beginning of the complaint, and are sollowed by ardent heat, great thirst, delirium, and pain in the head. For the most part however, the disease comes on in the manner, and the symptoms sollow in the order first enumerated.

In proportion as it advances, the stools become more frequent, the sick are distressed with violent vomiting

<sup>•</sup> Some latitude however, must be allowed to this remark, as the disease is frequently seen when the heat has not been excessive; at least I have found this to be the case in that part of the Delaware state to which my observations on the dysentery have been confined.

vomiting and griping; the tenefinus is more painful, and the relief obtained by straining hourly decreases.

Unless the symptoms be alleviated, the inclination to stool becomes more urgent every hour, by the violence of the straining, sweating is produced, and the patient sometimes faints with excessive pain.

The matters now discharged by stool resemble the washings of fresh meat, and have an exceedingly sectid and cadaverous smell: about this period of the disease particles like tallow or suet, and portions or silaments resembling the internal coat of the intestine, are sometimes sound sloating in and mixed with them\*

The irritability of the intestines is now increased to so great a degree, that any food, whether solid or liquid, when taken into the stomach, is followed by an immediate inclination to stool, accompanied with a sensation, as if what had been just swallowed was running through the bowels.

The langour and prostration of strength at length become extreme, a hiccough comes on, the countenance sinks, the alæ nasi are drawn inwards, the eyes lose their lustre and assume a glassy appearance, while the patient, on account of the imperfect vision is, distressed with imaginary objects slying before him.

In this stage of the disease, it is a common observation that the countenance of the patients strongly

<sup>\*</sup> Dyfenteria carnofa.

<sup>+</sup> Hunter Dis. of Jam ----

strongly resembles that of some of their ancestors\* while on their death-bed.

The excruciating pain, which before tormented the fick, ceases for some hours, and in some cases for several days before their end; and though at this time they are commonly delirious, yet they are sometimes sensible to the last+.

The fæces are expelled involuntarily and with intolerable fætor, an absolute inability of deglution takes place; the pulse is exceedingly weak, the teeth and tongue are covered with a black crust, which collects in a few minutes after being cleaned away; death follows, and relieves the miserable patient from his sufferings.

Lumbricit have frequently been discharged by vomiting, as well as by stool, in this disease; § but it is not probable, that they are ever the cause of the dysentery; and I am not disposed to believe that their number can ever increase to so great a degree as to form an indication for their removal.

B Miliary

<sup>\*</sup> This circumstance is common in those who die of lingering complaints, and so evident, that it never sails to be noticed by the relations. It may be accounted for, by supposing that the bones of the face, as well as of other parts of the body, are formed alike in persons of the same family: when, therefore, in the course of long continued diseases, the adipose substance is nearly, if not entirely, absorbed, and the bones in the face are only covered with the skin, their form more readily appears through it, and from this samily conformation in them, the sick are said to resemble some of their ancestors or relations when in similar situations.

<sup>†</sup> Pringle dis. of army, p. 233.

<sup>†</sup> Worms of a round kind.

<sup>§</sup> Huxham de aëre vol. ii. p. 98. Pringle dif. of the army, second edition, p. 271. Monro, p. 65.

Miliary eruptions, as in other cases where a tentendency \* to putrefaction occurs, appear in this disease.

Diffections of the bodies of those who have died of the dysentery, shew that there is no part of of the alimentary canal which has not at one time or other been found greatly affected: but the whole of these morbid appearances are entirely to be considered as the effect of the disease.

In some places, the intestines are flaccid, in others their cavity is straitened and instanced, or ulcerated, especially in the colon and rectum, (where the chief violence of the disease seems to be exerted,) and little pushules or tubercles are observed, which resemble the small pox† of a flat fort, at the heighth of the disorder, except that they are of a firm consistence without any cavity.

No conftant or uniform difeased appearance has been observed in the liver or gall bladder.

#### DIAGNOSIS.

The very few difeases, with which the dysentery is liable to be confounded, the full, and I hope accurate

<sup>\*</sup>As the noted dispute respecting the actual existence of putresaction in the living body, is as yet undetermined, and as it is a matter greatly to be doubted, whether such a state does take place while life remains, I think it proper to suspend my judgment, and not speak decidedly on this question, till it shall be more sully discussed.

<sup>+</sup> Pringle dif. of army, p. 264. Monro dif. of army, p. 66.

curate description already given of it, renders any thing on the subject of the diagnosis totally unnecessary. From diarrhæa, cholera morbus, or bleeding piles attended with griping, a just discrimination will, at first sight be made by the most inexperienced practitioner.

#### REMOTE CAUSES.

THE remote causes of dysentery appear to be very similar to those of the remittent and intermittent fever. I have already observed, that the dysentery, appears to be so intimately connected with these fevers, that it has been disputed, whether it is not the same disease differently modified, and whether it is ever an original affection.

For my own part, I must candidly acknowledge it to be my opinion, that although the controversy has been kept up by many successive writers (since the time of Sydenham) it has never been fully decided: and therefore, I shall only state the most important of the arguments, that have been offered on both sides of the question, and leave the judicious reader to determine for himself.

Those who affert that the dysentery and intermittent sever are the same diseases, and consequently are produced by the same causes, argue upon very plausible grounds.—For example;

1. Both diseases appear at the same season of the year, and in the same place, in persons who have been exposed to the same causes, such as night damps, and sogs after hot days.

2. Those

2. Those countries which are most subject to the one disease, are also most liable to the other.

3. The analogy subsisting between the two diseases is so great, that according to Dr Cleghorn, a tertian is sometimes changed into a dysentery, and a dysentery sometimes becomes a tertian, and when one of these diseases is suppressed, the other ensues; nor is it uncommon for dysenteric severs to put on the form of tertians, and for paroxisms of tertians to be regularly accompanied by gripes and stools \*.

Sir John Pringle† has also observed that those who were seized with the dysentery usually escaped the sever, and that if any man had both, it was alternately, so that when the slux began, his sever ceased, and when the sormer was stopped, the other returned; hence it appeared that though the two distempers were of a different form, yet they proceeded from a like cause.

4. It is also alledged as a proof that the causes of these diseases are precisely the same; and that they will excite either a dysentery or intermitting sever, just as the situation of the system, or other circumstances at the same time of their application, savors the production of one or other; that each of them prevails at the same time in different parts of the same neighbourhood: this happens in Pennsylvania, where a dysentery is frequently observed in the high grounds near the marshy parts of the state, while

<sup>\*</sup> Cleghorn diseases of Minorca, p. 134. † Dis. of Army, p. 58.

while remitting and intermitting fevers prevail in the neighbourhood below them \*.

These are the principal arguments which have been, and may be advanced, in favour of the supposition, that the dysentery and intermitting severs are different modifications of the same disease.

But the arguments on the other fide of the queftion, if not so numerous, are nevertheless equally weighty with me, and in my opinion tend strongly to prove, the distinct and separate nature of the two diseases.

Although it was formerly remarked, that the dysentery and intermittent fever are generally prevalent in the same place, and during the same seasons, yet there are some exceptions to this rule.

Degner observes, that although there are many stagnant pools near Nimeguen, yet the dysentery was not known there for a considerable length of time, until the contagion of it was introduced by one man.

Lancifi also relates, on the authority of a physician of the city of Stutgart in Germany, that when there was a fish-pond near that city, the intermittent fever was so common, that it obtained the name of the *Stutgart* fever, but that a dysentery never was observed to accompany it.

In the State of Pennfylvania alfo, in the year 1779, a dysentery prevailed with great mortality

in

<sup>\*</sup> Rush's Med. Inq. and Obs. p. 93-

<sup>†</sup> Degner, de Dysenteria, p. 96.

in a part where the intermittent fever never was known.\*

Dyfentery often occurs with little or no fever.— These facts are sufficiently weighty, in my opinion, to prove, that although the dyfentery is frequently a symptomatic affection, it is no less frequently an original disease, depending upon a peculiar specific cause.

Dr Lind, to reconcile the dispute, observes that the dysentery which attacks persons in health, may be considered in the light of an original disease, and that those sluxes which attack persons much weakened by a sever, and reduced to a very low condition of body, are properly symptomatic, as they chiefly proceed from debility and weakness, of which the slux is a certain proof.

Sir John Pringle decides in the following words: "Upon the whole, the nature of the two diffempers appear so much alike, that at first sight, Sydenham seems to have expressed himself justly, when he called this slux 'The sever of the season turned upon the bowels.' But the circumstance of its being contagious, shews that the dysentery is essentially different from those severs."

After

<sup>\*</sup> Rush's Lectures.

<sup>†</sup> Lind on Hot Climates, p 275.

<sup>†</sup> This argument, however, may be easily refuted, as the contagious quality of diseases is not sufficiently uniform or permanent to admit of such an inference; for however contagious the dysentery may be in other climates, where the heat is not so excessive. Dr Hunter did not find it so in Jamaica, besides the more violent species of intermitting sever are contagious, as tertians; and although it has been afferted by the physicians of Jamaica, and by other authorities also, that the yellow sever is not

After this lengthy, but I hope not useless statement, I proceed to specify the

#### REMOTE CAUSES.

These may be divided into predisposing and exciting. The predisposing are either external, or internal. The external are, 1. Heat. 2. Moisture; and 3. Want of cleanliness.

The internal, may be, 1. Debility, from previous difeases, excessive evacuations, &c. &c. 2. Depressing affections of the mind, as fear, &c. 3. A great tendency in the sluids to putrefaction, or that condition of body, which occurs in camps and sleets, when the soldiers and sailors are exposed to the excessive heat of the sun.

Heat and moisture \* act principally about the end of summer, when cold and moist nights succeed to warm days.

In

contagious; yet a number of the ancient citizens of Philadelphia will, during their lives, bewail the loss of their friends and relations, who were carried off by the yellow fever in the year 1747, the contagion of which was brought to this city, in the clothes of a young man, who died of that fever in the island of Barbadoes. Lind on Seamen, p. 212.

\* Heat and moisture combined also become powerful agents in the production of the principal exciting cause of severs, &c.; moisture, however, will not produce this effect without other co-operating causes. Almost every spring the banks of the river Delaware, below the city of Philadelphia, used to be overslowed, and the inhabitants who lived near the river, experienced no disadvantage therefrom; but if in the course of the summer during warm weather the meadows were again under water, dysenteries, remitting and intermitting severs were constantly observed to seize the neighbouring people,

In this state of weather the whole system is much debilitated, the solids are relaxed, a tendency to putrefaction is perhaps produced, and perspiration is often checked; on this account, therefore, I believe heat and moisture may be considered as remote causes of dysentery.

Want of cleanliness is a powerful cause of this, as well as of other diseases; it is always unwholesome, but in the summer, and especially when heat
and moisture have been combined, it has long been
known to be the surest means of producing the dysentery.

The exciting causes are,

1. Miasmata. 2. Contagion. 3. Cold.

Miasmata arising from marshes are a very frequent and common cause of dysentery, as well as of intermittent severs. Of the many proofs of this, I will mention but two.—In some parts of the Delaware state, there are a number of marshes and swamps, and the inhabitants are continually affected with either severs or sluxes.

The inhabitants on the banks of the Nile, after the retiring of the waters, subsequent to their inundation by that river, are often seized with dysentery, as well as various complaints of the low class, which other circumstances that take place render more dangerous and fatal than any that we have an opportunity of seeing in this or other countries.—That contagion, is also a powerful agent in the production of dysentery, no one will doubt, who considers its fatal effects in camps and

in fleets. Degner, in the history of a dyfentery which raged with dreadful havoc at Nimeguen, in the year 1736, informs us, that the contagion was communicated by one person\*, which afterwards infected the whole city.

The contagion is conveyed by every thing about the fick, as clothes, &c. "But the greatest fources of it, fays Dr Pringle, are the privies, after they have received the dysenteric excrements of those who have recently fickened+."

And here a question arises which we apprehend is of some consequence to determine, viz.

What is the nature of these miasmata and contagions, or how do they affect the human body?

Do they act by operating on the nervous fystem, weakening the influence of the sensorium commune, and consequently the whole body? Or it is more probable, that they are taken in with the air in respiration, and, mixing with the saliva, are conveyed into the stomach and intestines, where, by operating on the extremely sensible nerves of those organs, which are intimately connected with the whole body, they produce the disease in question? Of these two opinions, the one most consonant to my ideas and best supported by facts, is the latter.

Almost every dysentery, and many other diseases, arising from marsh miasmata or contagion, begins with some affection of the alimentary canal, as nausea, oppression, and vomiting, which are constantly observed

<sup>\*</sup> Degner de dyfenteria, p. 69.

<sup>+</sup> Pringle, p. 245.

observed to take place at their accession. Dr Lind observes, that "In discoursing with several who had been infected by patients in contagious severs, they generally compared the first impression to an earthy disagreeable scent received into the stomach, as from a grave newly opened, but not quite so raw as the cadaverous stench\*."

But what we think will still make this idea of their mode of action more probable, viz. that they are mixed with the saliva, and are carried into the stomach, is the success attending the use of those means whereby the contagion is prevented from entering the system, or is quickly discharged before it has time to exert its noxious effects. Thus Dr Turner informed Sir John Pringle, "That he escaped the infection of the hospital fever, by chewing tobacco, during the time he was on his visits to the men in the hospital+."

Dr Lind also observes, "That swallowing the spittle in infected places, is justly deemed a means of sooner acquiring the taint; wherefore neither the nurses, nor any one else, should be suffered to eat in the hospital." The success of timely purging and vomiting, in the prevention of all contagious diseases, is a further proof of the doctrine here endeavoured to be established. Dr Lind speaking of the effect of emetics and purgatives, remarks, "That the effects of these antidotes are so well

\* Papers on Fevers and Infection, 3d edition, p. 62.

known

<sup>†</sup> Medical Annotations of Sir John Pringle, quoted by Dr Gardner, in his observations on the animal economy, p. 218. Papers, p. 11.

known to the hospital, and have been so fully ascertained by our repeated experience, that those who are employed in the sever-wards, as soon as taken sick, have immediate recourse thereto, and it feldom fails to prevent the illness which was so justly to be expected.

A few years ago, the dyfentery was epidemic throughout a fettlement in the western parts of this state, when it was remarked, that every one who took a dofe of Glauber's falt, or fome gentle laxative, escaped the disease; but that a few who for fome reason, did not comply with this direction, were feized with it.—These observations will apply with equal propriety to every kind of infectious fever; of the truth of them I am firmly convinced, and were it necessary, or consistent with the bounds prescribed to this differtation, I might advance many other facts and observations in support of the opinion I have adopted; but I hope it is unnecessary, and shall therefore conclude with repeating, that the circumstance of the primary affection of the stomach and bowels in the dysentery, and other contagious diseases, and the success which has attended the practice of early vomiting and purging in them will tend to explain the manner of infection, and confirm the probability of the idea, that the contagion is taken in with the faliva, and acts on the stomach and bowels\*, and that in confequence of the very great and acknowledged connection which these viscera have with the rest of the fystem, the whole body is afterwards brought into difeased action.

The third, and last mentioned exciting cause of dysentery, was cold. This is undoubtedly a frequent cause of this disease, and when applied to the body under certain circumstances constantly produces it.

From the observations of Drs. Pringle and Monro, 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, after a long march when they are heated, or by drinking any cold liquor, when under a profuse sweat; and during the late war, the greatest part of a company of soldiers were seized with a dysentery, the next day after marching a number of miles in very warm weather, and being exposed in the night to a heavy rain.\* Dr Blane also tells us of sixteen men belonging to the crew of a vessel, who were seized with a dysentery on the first exposure to cold weather, though they had been previously very healthy.

Notwithstanding these respectable authorities, Dr Cullen (although he allows that "The dysentery does often manifestly arise from the application of cold") says, "It is 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 ‡.

But

<sup>\*</sup> Rush's Lectures.

<sup>+</sup> Dif. of Seamen, p. 75.

<sup>‡</sup> First lines vol. iii. p. 109.

But furely in the above cases, no contagion could be supposed to be received into the body; the men in all probability, would have remained perfectly free from the disease, had not the cold been applied; I must, therefore, differ from the celebrated professor, and adopt the opinion of those who consider cold as an essential occasional cause of dysentery.

#### PROXIMATE CAUSE.

IN treating of the remote causes, I shewed that the stomach and bowels were the first parts affected in the dysentery; the cause of this affection I also endeavoured to prove was the contagion, taken in with the air in respiration, which being mixed with the faliva, and carried into those organs, by irritating and weakening them, produced the disease in question. Why the great intestines, and particularly the colon, should be so much more affected than the other parts, we are yet entirely ignorant, unless the very large cavity of that intestine, and its peculiar constriction, favouring the stagnation or retention of the sæces in it, more than the others, can help to explain the difficulty.

But although this matter cannot be clearly determined, I do not apprehend it will invalidate the above reasoning, or that it is inconsistent in me to adopt the idea of Dr Cullen, "that the proximate cause, or at least the chief part of it, is the preternatural constriction of the colon, which occasions at

the fame time, the fpafmodic efforts which are felt in fevere gripings, and being propagated downwards to the rectum, occasion the frequent stools and tenefmus\*."

#### Prognosis.

WITH respect to the rules whereby a judgment may be formed, as to the probable event of this disease, as little need be said as on the diagnosis, or method of distingushing it from other diseases. It may be proper to remark, that the age and habit of the patient is always to be attended to; the dysentery, as well as other affections of the bowels, being peculiarly mortal to those considerably advanced in life, as well as to pregnant women and children.

If the dejcctions at the beginning are copious, if the strength of the patient is not much diminished, the appetite pretty good, the nausea and vomiting moderate, there is not much danger to be apprehended; but if the stools become less, and more sectid, in proportion as their number is increased, if the gripings and tenesmus become more and more violent, and are accompanied with delirium, petechiæ and a weak pulse, great danger is to be apprehended. A biccough in the latter end of this, as well as of all other diseases, is accounted a bad sign, as it takes place in the very last stage of almost

all mortal complaints\*. Involuntary ftools and apthæ occur also among the last and most dangerous symptoms.

## METHOD of CURE.

NO disease to which mankind are subject, is perhaps more manageable by the physician, or admits of more certain relief, upon the speedy application of proper remedies, than the dysentery. This is a truth which is established by every writer on the disease; and is confirmed by the united observations of physicians in every part of the world. It is, however, likewise ascertained, that there is no complaint more difficult of cure than this, when neglected, and to which a greater number fall a facrifice, when it is not attended to. As very different states exist in the system in the beginning and latter stage of the disease, the indications of cure must accordingly vary.

They appear to me to confift,

- 1. In restraining the excessive action of the system, and in removing the spasmodic constriction of the colon.
- 2. In obviating the more violent fymptoms, and reftraining the flux.

3. Re-

<sup>\*</sup> The learned and ingenious professor Rush, informed us in his lectures, that there was no symptom of death enumerated by authors in this or any other disease, from which he had not seen patients recover; yet he at the same time acknowledged, that when this circumstance took place, the danger was at the greatest height, and that it was seldom that the patients did not die.

3. In restoring the strength of the intestines and the whole system.

Ist. In the beginning of almost every case of dysentery, more or less of an inflammatory diathesis, as was formerly observed, prevails: To reduce this therefore, as in other diseases, where that state exists, venesection is the most certain and effectual method. The propriety of this measure, however, has been warmly contested by different writers, I must acknowledge for my own part, that although I have feen fome degree of this disposition prevail in the beginning, which evidently shewed itself by the full and hard pulse, great heat, thirst, and the other usual figns; yet this has never been so great, as to warrant my making use of the operation, as the fystem would be easily reduced by the other measures of the antiphlogistic course, without any confiderable lofs of strength succeeding, which would have been the cafe had bleeding been ufed.

I have no doubt, however, that it may be necessary in other parts of the world, where the fever may be violent, and the inflammation of the intestines so great as to endanger its terminating in gangrene, if this operation were omitted\*.

The fituation of the patient, the degree of fever, the feafon of the year, and the tendency of the complaint, will regulate the judgment of the practitioner,

<sup>\*</sup> It must be recollected that the author lives in a part of Kent county, Delaware, where intermitting and remitting fevers, fluxes, and similar complaints are extremely common throughout the whole year, but where few genuine inflammatory diseases prevail.

titioner, when deliberating about the propriety of the measure.

Emetics have been recommended in this difease, the nausea of which naturally indicates them; and by relieving the sickness at stomach, as well as diminishing the action of the system, they have frequently cured it, as well as other contagious diseases, when recourse was had to them on the first attack; but when it has continued for some time, by frequent repetition they increase the debility of the system, and do considerable injury.

Ipecacuanha for a long time was thought to be possessed of a specific power in the dysentery, but later experience has proved, that the effects of this medicine are best obtained, when given in small doses, so as to operate by stool; antimonial preparations have also deservedly gained great credit in this disease.

When a mere emetic is wanted, it is not of much confequence which is used, and therefore the practice of some, in *joining them*, when only intended to act with that intention, does not appear to be judicious; when stools are desired, a small quantity of tartar emetic, as likely to pass the pylorus, and act on the intestines, may be properly enough joined with the ipecacuanha.

The fever most commonly abates in the first week, but where this continues violent beyond that period, notwithstanding the use of means to the contrary, blisters applied to the wrists seldom

) fail

fail of putting a stop to it, and of producing a perfect intermission, or remission, when a judicious exhibition of the Peruvian bark will at once accomplish a cure.

The fecond part of this indication, or the reremoval of the spasmodic constriction of the colon, and the evacuation of the contents of the intestines, is one of the most important in the cure of dysentery.

For this purpose purges are of the utmost confequence, but those of the gentle kind only should be used; as neutral salts, castor oil, &c. These ought to be repeated every day in the beginning of the complaint, and occasionally throughout the the course of the disease, as circumstances may require.

The neutral falts are particularly proper, especially those of Glauber or Epsom, in the first stage of the disease, because they have a sedative action on the system, and will frequently lay on the stomach when every thing else is vomited up\*.

The frequent repetition of purging might naturally be supposed to be attended with injurious effects in weakening the sick, but the contrary is the

cafe,

<sup>\*</sup> The very difagreeable and bitter tafte of these salts prevents their being much used by some, who do not know how to correct this great desect. It may however, be corrected; for if the juice of two limes, or one lemon, with half an ounce of loaf sugar, be added to fix drams of Glauber or Epsom salts, in half a pint of boiling water, a mixture is formed that is nearly as pleasant as strong beverage. Rush's Med. Jnq. and Obs. p. 96.

case, for they seem to be invigorated after every stool, and have considerable relief afforded to the pain, griping, and other symptoms, by the discharge of the noxious contents of the bowels, which by being retained, would increase the disease.

Rhubarb, and other refinous purgatives, of a fimilar nature, though formerly much used, are found to be very hurtful, for by their stimulating quality, they add to the pain and griping of the patient, and do not procure fo full a discharge, nor in so easy amanner as the neutral salts, or others of a more gentle nature. Besides, as rhubarb has an astringent quality, it leaves the body bound after its operation as a purgative, (though this quality renders it very useful in diarrhœa, proceeding from mere relaxation of the intestines, which may need some previous evacuation), and having this effect, before the noxious contents of the bowels in dyfentery are completely discharged, it will readily be deemed, as in reality it has been found to be, one of the most improper medicines in dysentery.

The vitrum ceratum antimonii, formerly much used, is now almost entirely rejected from modern practice, on account of its uncertain and harsh operation. It must, at the same time, be acknowledged, that it continues to be used by several gentlemen in this country of the first rank in their profession.

Of the variety of antimonial preparations hi-

therto used, the tartar emetic is the most certain in its effects, and therefore most proper in this disease.

It may be given in very small doses, in any convenient vehicle, in those cases where the neutral salts have failed of producing the desired essect, and at such intervals of time as would prevent its vomiting, but allow it to pass the pylorus, and act on the intestines as a purgative.

Mr Senac, after evacuations, trusted the cure to a grain of tartar emetic, dissolved in a pint of whey or chicken water, and taken in divided draughts every day, as food, drink, and medicine, until the patient recovered\*.

The oleum ricini, or castor oil, is also a very useful laxative in the dysentery.

By adding a little Madeira wine, or compound spirit of lavender and sugar, its bad taste is corrected, while its activity as a purgative is by no means diminished.

Injections of mucilaginous and demulcent liquors, as broths, and decoctions of various kinds, are of great use in this disease; for by sheathing the intestines, and supplying the place of their natural mucus they afford great relief, and the colon being silled with warm liquor, the relaxation of its spasmodic constriction is thereby affisted, and the discharge of the indurated faces promoted.

The

<sup>\*</sup> Pringle, p. 277.

The warm-bath is also of singular service in this respect, and is especially useful if a stranguary should occur.

3d. The fevere gripings and pain that diffress the fick in the dysentery, prevent them from obtaining any rest. The most effectual means of procuring this, is by the use of opium.

But this is feldom or never proper, until by the previous use of purgatives, the bowels have been cleared: And although in slight cases the cure may be entirely trusted to that medicine, as Sydenham afferts, who bestows the most lavish praises on it, yet I cannot help agreeing with Sir John Pringle\* and Dr Young † in bearing testimony against its use, unless previous evacuations have been made.

But where these have been made, and the pain, tenesmus, and griping continue from a morbid sensibility, no medicine is capable of producing more immediate or certain relief.

It ought to be given every day, proportioned to the age of the fick, and to the violence of the fymptoms, and the dose should be increased every night. It may be given by injection, as well as by the mouth, combined with some emollient liquid, as decoction of linseed; and in this way it sometimes

<sup>\*</sup> Dif. of Army, p- 226 and 232.

<sup>†</sup> Dr Young fays "I use opium only when the disease is mild, or after its violence is abated by evacuants and emollients." Vide Treatise on Opium, sect. vii.

fometimes affords great relief, by its coming in immediate contact with the difeafed parts.

Opium in a liquid form may be joined with the purgative medicines, which will have the double advantage of easing the pain without producing any bad consequences by its constipating effects. For this purpose, the castor oil, joined with a proper quantity of laudanum and some cinnamon water, compound spirit of lavender, or a little wine, and some sugar, makes an agreeable formula, and has been found remarkably useful in easing the griping pains.

The promotion of a free and equable perspiration is of the utmost consequence in this disease, and for this purpose, a stannel shirt should be worn by every one labouring under the dysentery.

The fever fometimes continues but for a short time, while the proper dysenteric symptoms remain much longer, merely from 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.

The variety of these is very great, but the Peruvian and simarouba bark in insussions are preferable to the vast variety recommended.

Great benefit has been derived from the use of lime-water mixed with milk, in this chronic stage of the disease\*.

<sup>\*</sup> In one case it proved a complete cure, after the disease had continued sourteen months without the least abatement of the symptoms,

3d. To restore the strength of the intestines, and that of the whole system, was the last indication of cure mentioned.

The period at which this becomes necessary is very different in different persons. In some who have a considerable degree of vigour, and where the disease from the beginning assumes an instanmatory form, much nourishment will be unnecessary and hurtful; but if, as sometimes is the case, great debility prevails from the commencement, and this continues throughout the course of the disease, it then becomes one of the sirst indications of cure.

The diet, it is evident, ought to be varied with the type of the difease, but whatever species prevails, it should consist of the most bland and emollient substances. The stomach is incapable of digesting solid animal food, and almost constantly rejects it, though soups are very proper, and with other articles of a mucilaginous nature, which may be more agreeable to the sick, ought to constitute the principal part of his diet.\*

For

notwithstanding the best medical advice, and after the whole Materia Medica had been exhausted. See Edinburgh Phy. and Literary Essays, vol. 1. p. 282.

\* Tapioca, the prefent fashionable diet in diseases, would answer very well, as it is mucilaginous and nourithing, but its price prevents the more general use of it. The purpose however of this, as well as the other articles mentioned, being to supply the natural mucus of the intestines, which is abraded, and at the same time to afford nou-

rishment,

For drink, barley, or tamarind water, or whey, are proper; and ripe fruits of various kinds may be allowed the patient. A free use of these has often been accused of producing the dysentery; but as the difease occurs rarely in those seasons in which fruit is plenty, it is a fufficient argument against the idea of the noxious quality, and the observations of Drs. Tissot and Pringle on this subject, are so full, and so completely resute the idea, that it is unnecessary to dwell any more on it. I may just remark, that the well known fact related by Dr Tiffot, of a whole regiment of foldiers having been cured of this difease by the free use of grapes, would be sufficient to silence every argument brought in support of a contrary opinion, which happily for mankind is now nearly exploded \*.

In

riftment, which does not by its stimulus require much exertion of the digestive organs, economy may be consulted. Any of these mentioned, therefore will do, and I have experienced the most excellent effects from panada made with water biscuit (which is not so liable to turn sources that with bread) rendered palatable by the addition of some grated cinnamon or nutmeg, as likewise from the preparation of flour mentioned in a book in every bodies' hands, Dr Buchan's Family Physician, who relates it on the authority of the late Prosessor Rutherford of Edinburgh.

\* Too much praise cannot be bestowed on those excellent physicians for their endeavours to root out the prejudice against the use of ripe fruits in the dysentery. People have been known to be cured by their use in the very last stages of the disease, and after it has harrassed them for years, for which I refer to the well known books of Drs. Tissot and Buchan. The experience of all countries and times,

In every difease where a tendency to putrefaction takes place, nothing is of more importance than a free and constant circulation of fresh air; in the dysentery this circumstance ought to be particularly attend to, medicine is entirely useless without it, every thing therefore capable of adding to its impurity, or favouring its stagnation, ought to be removed.

The foces, as foon as discharged, should be taken from the patient's room and the windows hoisted to admit the air\*.

The bed of the fick should be near the center of the room, at least removed at a distance from the wall, experience having shewn that the contagion adheres to it, and by continually acting on the fick, debilitates and keeps up the disease.

But the principal and almost sole dependence, as a medicine for restoring vigour, must be placed on a free use of the Peruvian bark, joined with nourishing diet, and a moderate exhibition of sound old wine.

The

fays the Lyons editor of Dr Tiffot's advice to the people, fo strongly confirms these important truths, that they cannot be too often repeated and too generally published, whenever and wherever this disease rages.

\* The propriety of this remark will apply to the chronic as well as the acute state of the disease. Dr Lind relates a remarkable case of a man who had the disease for two years, but did not confine himself, and thus insected the other patients in several hospitals, and their nurses, but on debarring him the use of the common privy, the general complaint among them ceased. Lind Papers, p. 37.

† See the History of a Dyfentery, in the cases and observations of the New-Haven Society, Connecticut, p. 68. The various modes of exercife, as riding in a carriage, on horfeback, or walking, ought to be used; and every debilitating measure which might endanger a relapse carefully avoided.

### FINIS.





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