Mackay (George), M.D.
Motto

Labor ipse producit
Essay
On Dysentery
Particularly as it occurs Among Troops serving In the East and West Indies
and in Temperate Climates.
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Introduction

The subject of the present paper has attracted a large share of the attention of Medical Writers both ancient and modern, and is one of the greatest importance both on account of its prevalence and fatality, particularly to those who are likely to be engaged in the Medical practice of fleets or armies. For as Dr. Mosley remarks "the pages of military history are as red for the stain of battle, than for those who have fallen victims to this calamity." But it is unnecessary to expatiate on the import of a disease, which has been long known as the scourge of fleets and of armies especially during the season of encampment.

The word Dysentery is of Greek origin and in that language signifies a general disorder of the bowels. In this sense it was employed by Hippocrates who classed under it all affections of the bowels of...
whatever kind. Celsius mentions the disease under the name of Termini and Colica Acidumiae as Rheumatismus Intestinalis com Unea. It has also received other denominations, as colica (colite) by some French writers, and bloody dysentery from the appearance or absence of blood in the evacuations.

Among the earliest attempts which were made of a clinical description of this disease, will be found that of Galen, who made four varieties, and since his time various facts regarding its forms and treatment have been added to our knowledge by the writings of many distinguished authors of modern times, as well as by the accounts of numerous epidemics that have occurred.

Although this country is by no means exempt from dysentery, yet it does not occur to such an extent as to afford an adequate idea of its prevalence and fatality in tropical climates, to which it most pertinently clearly belongs, and it is the opinion of many that the disease as it appears in the latter is different from that described by European authors. Sir George Bainbrigge and Sir James Macgregor are both of this opinion. The latter states that the 'tropical dysentery' that proved so fatal to the troops under his inspection differs considerably from the dysentery of Celsius, and ought rather to belong to the form of disease which
he has eloped with diarrhoea. While on the other hand Dr. Johnson (when speaking of the opinion of Mr. Gartis on this subject) says, 'But had Mr. Gartis extended his researches to Bombay, Bengal, China and other parts of the East, where atmospheric vis-à-vis epistemes are much greater than at Macao and where hot days are often succeeded by cold, raw nights, he would have seen the disease answering to every iota of Julian's definition, saving the hypoxia conflagrosa, which, pace tauri veris, exists only in the imagination.' Sir J. Kingslake remarks that all the epidemic depredations which he met with in the army were of the same nature, and that Dr. Thack and others affirmed him that in Germany, Minorca, America, and the West Indies, which suffer so much in climate, the disease appeared with the same symptoms (though varying in violence according to the heat) and yielded to the same treatment.

He also adds that both in Scotland and in this country whenever I had an opportunity of visiting such places in my private practice, I never could see that they required any different method of cure."

1. Influence of Tropical Climate; page 364
2. Diseases of the Army, 1st ed., page 123
Introduction

The dysentery of this country may be defined inflammation of the mucous membranes of the intestines, particularly of the large intestine, foramina and sinuses, scanty and frequent mucus and bloody defecations, with little or no discharge of solid matter, and generally accompanied with some degree of fever.

It is evident however that this will not refer to the disease as it is observed in tropical climates, and indeed it is impossible to comprehend in any other definition the different forms of dysentery. Most of our systematic authors seem to consider bilious symptoms as generally accompanying this disease, and in the nosological arrangement of Dr. Fuller it is placed in the class pyrexia. While Sir George Beaumont states that the "dysentery of India often makes considerable progress, and has very seriously, perhaps irretrievably injured the intestinal canal, before any urgent symptoms of pyrexia become either distasteful to the patient, or conspicuous to the medical attendant." Hardy in his "Observations on the Simple Dysentery and its Combinations," says, "Some of these"
of this disease as it appeared in the British army during the Egyptian Campaign, both discoursed at some length the impropriety of dysentery being arranged in the chyphagia. With regard to this W. Crambey remarks that "in those who have resided for a consider able time in India, and who are of a more habitual body and phlegmatic temperament, the state of the pulse of the skin and tongue, often indicative but little constitutional disturbance early in the disease, while in young plethorics and more recent comers, febrile symptoms are nearly concomitant with the first appearance of the dysenteric affection of the bowels." In respect to the circumstances under which dysentery may occur, it may be either sporadic epidemic or endemic, and much difference of opinion exists as to its being contagious, but of this we shall say more hereafter. Most authors agree as to the division of dysentery into two species, acute and chronic, and this nearly corresponds with the Colonicis and Kype or the flux of Sir George Bellingham. This many have again subdivided these into different vari...
Introduction

Thus, it is not our intention, however, to follow
the example of the latter, as we conceive it can
lead to no practical advantage, particularly if the
divisions are founded on the degree of inflammation
as they admit of no precise line of demarcation by
which one set of cases can be distinguished from
another, but only tend to render the subject more
abstruse, and as Dr. Johnson remarks, "upon the
whole, I greatly doubt whether such movements
of diagnosis is often practicable, or if it be whether it
be of any avail in actual practice." And the para-
meter method is that which is adopted by
some of our most distinguished practical
authors.

The order in which we shall treat of
this subject is as follows: We shall in the
first place detail the symptoms and progress
of acute uncomplicated dysentery as it occurs in
tropical countries, after which we shall men-
tion the difference that exists between it and
the dysentery of temperate climates. The chronic
form of the disease will next claim our atten-
tion, after the consideration of which we shall
notice the complications which arise from the
coexistence of dysentery with other ailments.
Introduction

In the next place we shall mention the organic changes to which the symptoms already described are owing, and which mortified anatomy reveals. We shall then endeavour to trace the causes of dysentery, and after giving a few statistical details from different countries, we shall conclude by mentioning the different methods that have been proposed for the cure of this formidable disease.
Part First

Description of The Disease

Chapter I
Acute uncomplicated Dysentery
Section I

Dysentery of India

In describing the symptoms of acute uncomplicated Dysentery, it is necessary to keep in mind the varying degrees of intensity which it is apt to assume. This form of the disease is often preceded by symptoms of common diarrhoea, in other cases by constipation, and in some instances the dysenteric symptoms appear from the first.

There is griping and a sense of increased action in the course of the colon, an altered action takes place in the secreting vesicles, serum, mucus, lymph and blood are thrown out by these, these unnaturally stimulate the muscular coat of the intestine and produce that
most characteristic symptom appears to occur, causing a desire to go to stool, where the patient will sometimes sit for hours straining.

The evacuations are at first but little noticed, and considerable variety is observed as to their number and quantity; they are copious, of a fluid consistency, sometimes mixed with blood, which Dr. Richter observes "never thoroughly combines with the slime or mucous so as to produce a uniform colour," but as Hydenham remarks, "appears distinctly or in streaks." Blood is also sometimes discharged in small quantities without any mixture or local matters.

In mild cases there are not more than nine or ten evacuations in the twenty-four hours, but in more severe cases particularly if there is great inflammatory action, they occur as often as four in the hour. But we cannot depend on this alone as marking the intensity of the disease, for Dr. Abercrombie states that, "The calls to stool are sometimes very frequent occurring perhaps every ten or fifteen minutes with much painful tenesmus, but in other cases the disease may be going on in the most alarming manner, while the bowels are not moved above four or five times a day."

1. Climate & Diseases of Tropical Countries p54  2. Diseases of the Stomach to p257
The most characteristic symptom is anaemia, causing a desire to go to stool, where the patient will sometimes sit for hours straining.

The evacuations are at first but little vitiated, and considerable variety is observed as to their number and quantity; they are corpuscles of a fluid consistence intermixed with blood which Dr. Chisholm observes "never thoroughly combines with the slime or mucus so as to produce a uniform colour," but as Sydenham remarks, "appears distinctly or in streaks:

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1. Climate & Diseases of Exotic Countries p. 34
2. Diseases of the Stomach &. p. 237
Acute, Uncomplicated Dysentery of India

It is remarked by several India practitioners, and particularly by Mr. Blankfield, that they are more frequent during the night and especially towards morning.

Considerable difference of opinion exists among authors, as to the presence in the evacuations of sezabal, or those small indurated balls into which the feces become converted. Although they are described by many as being present in dysentery as it occurs in this country, yet they are not universally so. Nor are they constantly absent in the dysentery of tropical climates. Among those authors who describe them as of rare occurrence in tropical dysentery, we may mention Sir George Ballingall, Mr. Blankfield, Dr. Johnson, and Dr. James Macgregor, who states that in 500 cases he does not think that sezabala were discharges in six of them! On the other hand, Dr. Fickelsson speaks of them as an ordinary symptom, and Mr. Annandale states with regard to them, that "solid feces or sezabala are seldom observed in the dysentery of India, although they sometimes occur," which he conceives is owing to the liquefaction of the retained feces, by the inveterate fluid exhaled from the irritated and inflamed...
Acute Uncomplicated Dysentery of India

Surface with which they are in contact, the accumulated matters being thus washed away by the epjous discharge proceeding from the diseased bowels, and squeezed in the liquid form through the spasmodically constricted canal. Dr Mason Good, while he seems to consider them as of rare occurrence in any climate, explains their production from the spasmodic constriction which so often takes place through a considerable extent of the intestine. The pain experienced varies considerably, and after the evacuation the patient is often much relieved.

In the first stage of the disease the tongue and fauces are but little altered, the heat of them is not much increased nor is the pulse accelerated. The appetite is increased, and the thirst augmented, there is depression of spirits, and considerable prostration of strength. The patient is affected with nausea which is sometimes accompanied with vomiting. These symptoms may be owing to an inverted action taking place in the alimentary tube being thus conveyed into the stomach and ejected by the vomiting. In some cases the mildest articles of food or drink are rejected without any bile, in others the action of vomiting occurs when nothing is discharged, this appears to be owing to a similar condition of the stomach itself, or its sympathy with the diseased state of some other abdominal viscera.
Acute Uncomplicated Dysentery of India

As the disease proceeds a change takes place in the excreta; they become more frequent and secretly composed of mucus and blood, or they may be still more watery, having the appearance of dirty water tinged with blood, or like the washings of flesh; they acquire an offensive odour, and in some cases become perfectly unbearable.

The smell is so peculiar, that an experienced person can distinguish it to be dysenteric on entering the room.

The tenesmus increases and it is often difficult to procure the patient to leave the close stool.

In the advanced and sometimes in the early part of the disease the urine is passed frequently has a high colour and is attended with restlessness, among other symptoms of the vicinity of the chief seat of disease, it is frequently expelled, from which the patient suffers much uneasiness. Pain is now felt in the hypogastrium and in the region of the coccyx. The patient will generally complain of pain, which may often be traced to the descending colon and sigmoid flexure. The tongue which in all instances of the mucous membrane of the intestines it is suffering of the greatest attention, is taut and flourished; it may have become dry hard and glazed, and as the close of the disease approaches this are frequently observed in the interior of the mouth, and sometimes extending along the pharynx.

There is loss of taste or a perversion of it so that all kinds
Acute Uncomplicated Dysentery of India

If food appear to have a nauseous or disagreeable flavour, the appetite is lost and the thirst becomes more urgent, if all liquids cold water is preferred, every thing taken to allay the thirst produces derangement and a desire of evacuation, as if it passed rapidly through the bowels.

The skin is hot, dry and dry, particularly over the abdomen, as it may be covered with acridous perspiration.

With regard to the pulse it may be stated that we cannot place much reliance on it as indicating the extent of the disease. In some cases it will be found that even yet it is not much affected, in others it is quick and bounding, and as the disease advances and the extremities become cold, it feels more quick and thready. There is a peculiar state of the pulse, namely that in which without much increase in velocity it is full and bounding, and communicates a peculiar thrilling sensation to the fingers, which Sir George Bonnington states indicates extreme danger, and points out that the disease is rapidly papping on to the final stage.

In some cases where the patient retains any degree of appetite the articles of food are now evacuated undigested, the evacuation becomes very great, and as the disease advances separation of the sphincter and underplace, the stools are passed involuntarily, mixed with membranous shredds and most infrequently, with a precedent manner, the bowel becomes protruded and the patient emits an inaudible
Acute Uncomplicated Dysentery of India

...odour. Portions of the mucous membrane have been discharged in the evacuations, and even after their recovery is said in some cases to have taken place. But when the disease has proceeded so far, the pulse generally sinks, headache, vomiting are distressing, the countenance is sunk, delirium comes on, and death shortly closes the dismal scene.

"It might, says Sir J. Dingle, 'be of use to know what gut is particularly affected, when the gripes are severe. But this we can hardly ascertain, considering how much the intestines are liable to change their place by the purgative motion, how their situation may vary in different persons, and how easily the pain in the colon may be confounded with that of the smaller guts, which are surrounded by it." This statement is, no doubt, so far correct, yet there are certain symptoms, which will often enable us to determine their point with some degree of certainty.

If there is much constitutional disturbance, the mucous membrane of the small and large intestine may be affected to a considerable degree, and yet the symptoms by which it is marked may not be very evident. But in general, if the feeling is hot in the course of the colon is wanting, if pain is not complained of on pressing over the region of the colon, and segmental spasm of the colon, if the abdomen is not tense or tender near the..."
Acute Uncomplicated Dysentery of India.

Surmising extreme, although the tenesmus is severe and there are frequent calls to stool, the disease may be considered chiefly settled in the rectum, but it sometimes happens that there is little or no tenesmus, and the other symptoms are distinctly marked, in such cases the higher portions of the canal may be considered as the chief seat of the disease. For Mr. Annesley says that he has often seen extensive ulceration of the caecum and colon when the patient during life did not complain of tenesmus. The rectum having been comparatively free from disease (which occurred in the case of Thomas Deakin related by him) and he considers that symptom as merely characteristic of disease of the rectum, although frequently an at least constant accompanying sign, for he has also observed it to a disturbing degree, when after death the colon throughout its whole extent was found little disturbed, and the disease confined to the rectum.

In those cases where the patient comes early under treatment, and when the disease originates in the caecum, denoted by diarrhoea, with fulness of the abdomen, and tenesmus in its vicinity, for some days before the characteristic stools and straining appear, the affection may often be traced along the large intestine to the rectum, and when occasionally happens tenesmus precedes the full
Acute Uncomplicated Dysentery of India

Development of the disease may trace its progress in the opposite direction.

When there is much fulness of the abdomen with pain and tenderness to the touch, which occurs chiefly in the last stage, the inflammatory action will be found to have extended to the peritoneum covering the bowels and adhesions often take place between it and the surrounding parts.

It has been observed by some authors, that the absence of pain should not lead us to infer that inflammatory action is not going on, for it sometimes happens that the patient complains of little or none, or uneasiness, even upon pressure, and yet the appearances observed after death on the inner surface of the intestines are as extensive as in those in which great pain is complained of.

The blood which is evacuated does not invariably proceed from an ulcerated surface, and most distinctly shown in a case mentioned by Dr. Grey, in which blood was discharged by stool, and on examination after death, the whole mucous membrane of the intestines was found in a highly vascular condition without ulceration or erosion.

In cases of this kind the blood generally appears in the stools in the form of streaks. When it is intimately mixed
Acute Uncomplicated Dysentery of India

with the other matters composing the evacuations and consists of dark, ghastly evacuations which probably proceed from the upper part of the colon or from the cecum, but when shed in large quantity and distinct from the other mucus it appears to flow from the lower part of the intestine.

When mucus is broken, it has been evacuated in some cases in the faeces and causing great pain, on coming in contact with the diseased portions of the intestines.

Dr. Murray remarks that vomiting is often present when the local mucus is much divided, which, he continues, does not appear to have attracted the attention it merits, for I have not found it alluded to in any another. In giving an enemial to relieve the stomach when overcharged, the patient has sometimes felt the original taste of the substance in secretion which he had taken for some days previously, showing a total loss of the function of digestion.

The evolutions of evaculable mucus which are thrown out from the inflamed surface of the intestine and afterwards detached from it may present a membranous appearance, but they can generally be distinguished from that of the mucus, membrane by the sloughy appearance of the latter, the character and putrid smell of the discharges which accompany them, and from the former commonly occurring at an earlier period of the disease, the latter being discharged in the advanced stages of severe cases occurring.
Acute Uncomplicated Dysentery of India

to the inflammation extending to the other coats, detaching the mucous membrane from the subjacent tissue. Portions of this membrane are sometimes observed protruding from the rectum, and on attempting to extract them great pain is produced. Mr. Sampfield, in speaking of a case of this description, says that the membrane was infinitely more tenacious than coagulated lymph, that it possessed some degree of elasticity, bore considerable force on extension without breaking, and when cut with the scissors was not easily divided, and felt tough as if the instrument had been cutting a portion of mortified intestine. Some authors do not believe that these membrane ever consist of the villous coat, and Dr. Leveque states that supposing them to be truly organic, this would not be a decisive proof that they are parts of the intestines, but on this we may remark, that false membranes thrown out on mucous surfaces, do not in general become organised, at least until the membrane itself has been removed by the disease.

In some cases the skin becomes slightly jaundiced or assumes a yellow or dusky hue, which may be independent of any actual disease in the biliary apparatus arising entirely in this form of dysentery, from the absorption of bile and fluid secretions with the lodges and retained in

1. In Tropical Dysentery, 1857. See the Diseases of Dysentery as they appeared in the British Army in Egypt.
Acute Uncomplicated Dysentery of India

When dysentery is attended with febrile symptoms in cold seasons or northern latitudes, the skin is hot and dry, but in tropical latitudes and hot seasons the degree of heat must be determined by the feeling communicated to the hand, and the sensations of the patient, as the surface is sometimes moist and covered with perspiration, and as Mr. Bampfylde remarks, fever and heat of skin sometimes prevail when the skin is quite smooth. The same author states that in the south-west monsoon, in India the perspiration is copious, particularly in calm weather, and is not the effect of medicine or art, but excited by the heat of the climate.

In the advanced stage of severe cases, the patient is sometimes affected with darting pains in different parts of the body, and often with spasm of the lower extremities.

When an abscess is formed or mortification occurs, the pain ceases, and the patient often flattering himself with the hope of recovery, and although when the mortification is confined to a small portion of the villous coat of the large intestine recovery is not impossible, yet it more generally happens that his hopes prove unfounded, and symptoms of a fatal termination ensue.
Acute Uncomplicated Dependency of the West Indies

When the disease attacks the natives of India, the symptoms are generally not very acute; the accompanying fevers, often passing rapidly from an inflammatory to a typhoid type, and in this low form of the disease, the skin particularly that of the extremities is frequently covered with a cold colelagative sweat.

In Europeans who have recently arrived in India, and in those who are of a phlegmatic habit, passing a rigid fibir and great irritability, it often assumes an hyper-acute form, the symptoms both local and general being very severe. While in those who have been long resident in intertropical climates, it generally occurs in a typho-inflammatory form, and often passes into the chronic state.

Section II
Dependency of the West Indies

Dr. John Hunter and Dr. Horsley both adopt the opinion of Tydenham in describing the dependency of the West Indies as a fever turned in on the intestines. The symptoms seem in general to resemble those which I have just enumerated.

Dr. Jackson however describes the evacuations, as being sometimes from the commencement, so small, ineffective, being often pure slime without feculence, sometimes slime mixed with feculence, and on some...
Acute Uncomplicated Dysentery of the West Indies

occasions, with blood. The form of the disease begins with an intense sensation in the lower bowels, accompanied with a greater or less degree of pain. The thirst is increased and the appetite lessened; the pulse is nearly natural, with a soft skin and moderate heat. The symptoms as they advance gradually assuming the dysenteric character with more or less fever. But the states that although many cases begin in the manner now described, it is often a febrile disease from the commencement with cold and shivering or sensations of horror and crossing, on some occasions there is burning pain and vomiting, languor, faintness and depression of spirits, severe griping and tenderness with a desire to go to stool, the evacuations being small and undigested in some cases, in others copious, offensive and mucous, mixed with blood which is some times pure and in streaks, in other cases it is dark and more equally mixed, with a faint sickly smell. Dysuria is often present. The tongue is dull sometimes moist and others dry; there is loss of appetite, a thin pulse, the skin is above the natural temperature and in some cases dry and harsh. The symptoms in the advanced stage often diminish in severity and there is a gallacious appearance of recovery.

1 Sketches of Febrile Diseases in the West Indies, p. 435.
Acute Uncomplicated Dysentry of Temperate Climates

which however is of short duration. The patient becomes emaciated, and the disease frequently passes into the chronic form.

Dr. Hunter remarks, that "There exists an intimate connection between the remittent fever and this disease (dysentry) in Jamaica, the one frequently changing into the other, or the two diseases are often complicated with various degrees of violence." An attack of dysentry often occurs as a termination to fever and frequently tends to that disease.

Section III

Dysentry of Temperate Climates

Having attempted to describe the acute uncomplicated dysentry as it occurs in Tropical Countries, we shall now make a few remarks upon it as it is observed in Temperate Climates.

People serving at home are by no means as subject to this disease as formerly, and this is particularly the case with regard to those in Ireland, where it is said to have been prevalent as to have been named by the English the country disease. Although in this country it is often a mild affection when confined to the lower part of the intestines yet...
Acute uncomplicated Dysentery of Tropical Climates

It is apt to extend along the canal, indicated commonly by pain and tenderness in the course of the colon, and the danger in general increases with the extent of the disease. It appears unnecessary to enter into a lengthened description of the symptoms for in doing so we should in a great measure have recapitulated many of those mentioned above. Though in a milder form, we shall therefore confine our remarks particularly to those which denote any peculiarity in this disease as distinguishing it from that of tropical climates.

I have already noticed the difference that exists between European authors and those of Tropical Countries regarding the occurrence of bloody symptoms. The evacuations are at first frequent and in small quantity, consisting principally of mucus mixed with blood, with little appearance of healthy feces, while as we have already mentioned, in the colonies of Sir J. Ballingall, they are copious differing at first only in consistence from healthy feces. Although some authors abortions that appear seldom if ever appear in the evacuations, yet on the whole I think they seem to be more frequently present than in the dysentery occurring within the tropics. Sir J. Hope takes particular notice of
Acute Uncomplicated Dysestahy: Temperate Climate

them and observe, that they seem to have been formed in the cells of the colon, and to have gained there from the beginning; for we can hardly suppose them to have afterwards acquired that figure and consistence, during a constant irritation of the intestines, and the low diet which patients there use.

In the Dysestahy which occurred in Dublin in 1818, few cases were not observed in the evacuations, or in the intestines after death, such as Dr. Cullen remarks, "in many respects, the Dysestahy of 1818 resembled that which has been described as occurring in tropical climates." In the conclusions drawn from the observations contained in his section on the "Active Inflammation of the Mucous Membrane of the Intestines," Dr. Turcoton makes the following observations with respect to the evacuations: "When the disease is confined to the rectum or the lower part of the colon, the evacuations appear to be scanty, and mucous or bloody, with retention of natural feces, or small soft bowel discharges, — the dysentery of systematic writers. When the disease extends through the whole of the colon, or through a considerable part of the small intestines, we may have copious di

Acute Uncomplicated Dysentery of Temperate Climates

varied by mixtures of malarial discharges, and by articles of food or drinks little changed. This appears to be the colonic and the tropical dysentery of practical writers."  

Sir J. Thistle states that he has seen white or a
stance discharged resembling such, and that Dr. Rush
and he in examining one of these colics voided by
a dysenteric patient, they both satisfied themselves
themselves that it was "nothing but a bit of chert,"
though the patient had tasted none since the begin-
ning of his illness, which had been then about a
fortnight standing. But he was unable to determine
whether the chert had been collected from smaller
particles, which had passed from the stomach to
the colon before the disease commenced, or had
been since formed of the malaris "which she had always
used." He must hardly add that the latter of these
explanations is at least the most probable.
"We were both," he continues, convinced that in
whatever manner this substance was produced
it must have been of the same nature as the
corpora pinguis, which we had so often seen
in the dysentery." 2

In Dr. Gallie's description of this disease he has
made no allusion either to the pain or tenderness

1 ut supra p. 264.  2 ut supra p. 329.
Acute Uncomplicated Dysentery of Temperate Climate

Dysentery of the tempertaue region, although they frequently occur in this country, and in some cases may be traced along the course of the colon.

Dr. Czajki employs the term Colonica to express inflammation of the mucous surface of the colon, and he makes two varieties of the dysentery of temperate climates, namely, Colonica Sinople, or dysentery occurring sporadically in autumn, and Colonica Qustrenia, or camp dysentery, which differs from the forms principally in the symptoms being more severe, the convulsions being greater, the disease being more rapid in its progress, and its tendency to affect many individuals at the same time.

Cases of sporadic dysentery occur almost every autummm and in general it assumes a mild form. The greater prevalence of the disease at this season and any other season of the year is fully shown by a fact mentioned in Major Jollosch's Statistical Report of the Army, that of 1849 troops attacked in the United Kingdom, of which the dates have been recorded, 649 were in August, September, and October, being twice as many as the average of the other months of the year; and the same fact bore has been uniformly manifested in every year of the period under observation.
Epidemics in Temperate Climates

Even to enumerate all the various epidemics that have taken
place at different times in temperate climates would
swell this Essay to an inconvenient extent, I shall there
fore only mention a few of them, particularly those that
have occurred in armies.

Lemni states that in 1638, although the season had been
regular, dysentery raged generally throughout Europe,
neither village nor town escaping.

A very fatal epidemic broke place in London in the
autumn of 1665. Sydenham also mentions that in that
city, dysentery which commenced with chills and rigors,
followed by heat, occurred in 1670 after the cholera had
ceased which prevailed during the summer. Willis likewise
describes this epidemic under the name of dysentery, but
it has been disputed by some, whether the description given
by them, is a correct one of that disease, for the former states
that some of his patients passed me blood, and the latter
that those whom he attended had for the most part some
but watery stools. Many other epidemics have also been
described as occurring in that city.

In Ireland dysentery has caused great havoc at different
times. English and Scotch regiments are said to
have been very subject to it, on their first arrival in
some parts of that country. Both the garrison, and the
army of King James at the siege of Londonderry, and
Epidemics in Temperate Climates

that of King William at Limerick suffered much from this disease.

Owing to bad and scanty food, dysentery prevailed in several parts of Ireland, in 1722, and proved very fatal until wholesome and nutritious diet was provided.

Between the years 1788 and 1801 the soldiers in Cork, Limerick, Waterford, Belfast and other parts suffered much from dysentery. The British Troops in Scotland in 1829 were attacked with this disease owing chiefly to endemic causes and it often followed or was converted into intermittent or remittent fever.

Dysentery perhaps cannot be said to have been epidemic during the peninsular war, but of all diseases it produced the greatest mortality. Sir J. Macgregor states that in the hospitals at Almejea and Estremadura intermittent fever prevailed or accompanied dysentery and remittent in July, August and September, when the army advanced rapidly and remained stationary in the And Castiles, and that in Portugal at Santiago de Cuba being in an unwholesome situation for an hospital, the sick were exposed to the effluvium emanating from 20,000 bodies which were calculated to have been buried either in the town or under its walls in a few months, and also at Portland and Pen, it was accompanied with dysentery gravior and proved very fatal. It also appears from his paper that from the 21st of December 1811 to
Terminations of acute Dysentery

The 20th June 1844, seven thousand five hundred and twenty-six cases of Dysentery were admitted into the Regimental hospitals. "But this," says he, "was by no means the whole that appeared in the army, the greater part, and these which were the severest cases of disease, being treated in the general hospitals." And during the period mentioned above no fewer than fifty men died of this disease.

Chapter II
Section I
Terminations

The acute form of the disease may be followed by a return to health, but it is frequently terminated partially, or one of the following ways. In ulceration, in sloughing and gangrene of a part of the intestines, in enteritis, or peritonitis which may be caused by the inflammation extending through the coats of the bowel, or by an ulcer perforating the intestine, and the contents escaping into the peritoneal cavity. It may also terminate by passing into the chronic form.

When ulceration takes place the symptoms in general become more severe, the stools are blood or puriform and as the disease advances they are frequently mostly of a dark colour, or notary with the smell of the washings of flesh. The blood discharged is dark, mixed with purulent matter and ichor, but in some cases it is separate from the rest of the puru-

1 Trans. of the Med. Chirurg. Society Vol. 6th p. 480
Prognosis of Acute Dysentery

Lower part of the canal. Gland observed that the pus might be more or less blended with the feces, according to the situation, either higher or lower in the canal, and if the situation is so high as to admit of an intimate mixture, it will not be visible. Necrosis sometimes occurs in the early stage of the disease, even in acute cases, and when confined to the mucous membrane without any decided change taking place, but as advances through the other coats, the symptoms become more marked and the pain more severe.

Hypothermia, rigour, and, being a sudden separation of the termites and pain in the abdomen, with a feeling of colicky there, involuntary discharge from the bowels, colic and bloody countenance, with lividity of the lips, a glazy appearance of the eyes, purpura—purpura of the eye, coldness of the extremities, great exhaustion, coma or convulsions, bloody stools and general fever of the body are the symptoms which mark the termination of the disease in gangrene.

The fatal issue may take place in three four or five days, or it may be protracted longer or three weeks, owing chiefly to the violence having been partially relieved by the treatment employed.

Section II

Prognosis

Recovery to health may be expected when the symptoms, though severe, are relieved by the remedies employed.
Progress of Acute Dysentery

particularly if there is a diminution of the abdominal pain
and tenderness, if the motions cease, if the stools become
less frequent, and the evacuations more natural, if the con-
nstitutional symptoms abate, and the appetite returns.

But a fatal termination may be looked for, if no
improvement is made on the disease, if the pulse's heat and
tenderness of the abdomen increase, if the pain becomes more
severe and fixed, if the discharges and loss of blood are so abun-
dant, as to obstruct the passage of the sphincter and become
paralyzed, the stools pass involuntarily and are greasy
smudged with dark coagula and purulent matter, and
particularly if portions of the mucous membrane are
discharged, if along with these there are oozings in the
inner extremities, subcutaneous tenderness, repletiona
stomach, delirium, times and vomiting, if complete
strongyry or suppression of urine take place, if the
organs of sense become affected, if the extremities cold and
the surface covered with a colloquial sweat of sordes
appear about the teeth and of these occur in the mouth.

A long residence in a tropical climate, advanced age and
having suffered from previous attacks, are also circumstances
which render the prognosis unfavourable.
Diagnosis of Acute Dysentery

Section III

Diagnosis

The principal diseases with which dysentery most apt to be confounded are diarrhoea, cholera and hemorrhoidal flux.

Diarrhoea is often with difficulty distinguished from dysentery, particularly in the early stage. The chief marks upon which we must rely in forming the diagnosis are: 1. In diarrhoea, the evacuations are more or less fluid and consist of loose liquid pears and not bloody. It is not attended with severe straining or tenesmus. The powers of life are not so soon exhausted, and it is rarely accompanied with heat of skin. The nature of the prevailing epidemic may also assist in particularly at the commencement of the attack.

Cholera may be distinguished from dysentery by the bilious stools, being more uniformly attended with vomiting, tenesmus being generally absent, the want of blood in the evacuations, the opalescence of the skin, and abdominal muscles accompanying cholera being seldom observed in dysentery except near the termination of acute cases, and by cholera when severe running a more rapid course than dysentery.

With regard to internal hemorrhoids, the want of tenesmus, the evacuations being solid and not diarrhoeic.
Chronic Dysentery

with blood which when it does appear, is not mixed with the feculent matters, together with the history of the disease and the circumstances under which these are sufficient to prevent us from confusing them with dysentery.

Some of the symptoms of enteritis and typhus also resemble those which occur in dysentery, but the peculiar characters of the dysenteric evacuations are sufficient to prevent its being mistaken for either of these diseases.

Chapter III

Chronic Dysentery

The chronic form of dysentery occurs most frequently in those who have been long residents in warm climates. It may succeed to the acute state or be preceded by symptoms of common diarhoea to which those proper to the disease more or less gradually subserve. In some cases it continues mild for a considerable time and unexpectedly becomes acute.

The patient is affected particularly about the umbilicus with sharp griping pains, which are quickly followed by a desire to go to stool, where a great deal of mucus is discharged with the evacuations.
Chronic Dysentery

which vary much in colour, being at one time granish or yellowish, at others of a very dark granish black appearance, sometimes resembling rice water, and in some cases they have a marbled appearance. Blood and purulent matter are sometimes discharged either mixed with the evacuations or distinct from the other matters.

The torments are generally absent or present in a slighter degree than in the acute disease, and the times is not so severe. These symptoms, however, are often much aggravated by retention of feces or the passage of undigested food. A scalding sensation about the anus often accompanies the evacuations.

The patient generally complains of thirst, nausea and want of appetite. The tongue is coated and sometimes presents a yellow fur, the skin becomes parched and the pulse accelerated, particularly towards the evening.

After a paroxysm of pain and each evacuation, the patient experiences a longer or shorter interval of ease, but the griping soon returns and the calls to stool become so urgent as to afford little food relief from his suffering, in so much says Sir Henry Bellamy, that it is no ways uncommon for soldiers, when attacked with this complaint, to carry a most
Chronic Jaundice

with them to the necessary, and to stop the night there,
instead of running backwards and forwards between
it and the barrack room."

Owing to the obstruction of bile, and the altered
function of chylification, together with the marked
secretions, the stools assume the yellow colour which
has given rise to the term "white flux," they present
an appearance intermediate between the white of
eyes, and a dirty fluid mixed with chalk or lime,
frequently contain undigested food and are accompa-
nied with severe straining.

Although this form of dysentery is often compli-
cated with disease of the liver, yet the various appear-
ances of the stools which we have mentioned do not
necessarily indicate that that organ is affected. Thus
white stools may be produced by an increased secretion
of mucus, dark stools by blood flowing from the
upper part of the intestines, and being intimately
mixed with the rest of the evacuation. It may also be
remarked that melancholic persons have naturally
often stools of a black colour. Green stools may
also be produced by the admixture of bile with food
matter, without any arrangement of the liver.

As the disease advances the thirst increases, the baby
becomes weak and emaciated, the formation increa-
and diarrhoea is a troublesome symptom. The
gluten dysenteria is mentioned by Sir George Ball-
yall as having been distinctly described in one or
two protracted cases in delicate subjects. Nausea
more complained of, sharp and bilious vomiting
become very troublesome. The abdomen is some-
times tympanitic at others flatter than usual. The pulse
loses its strength and increases in rapidity, the
skin has a sallow appearance, and at length death
takes place after weeks or even months of suffering.

Chronic dysentery is rarely met with in this
country, and although it most frequently attacks
Europeans who have been long resident in warm
climates, and who have suffered from diseases of the
stomach, liver or bowels, yet it also affects the
natives of India, and Mr. C. Annesley states that in them
it presents more decidedly the character of a chiefly dis-
charge from the bowels, and is more evidently the
result of deficient tone in the vegetal and follicular glands
of the digestive mucous membrane, whilst the inflam-
matory character of this disease is most prominent
in the European constitution.

Terminations.-Patients affected with this form of the
disease may be cured off by an attack of acute peritonitis from
the contents of the intestines escaping into the abdomen.
Terminations of Chronic Dysentery

As the rupture of their coats, which generally takes place in the situation of an ulceration.

Sympathetic constrictions often occur in the colon, and owing to the long-continued inflammatory action, they not infrequently become permanent in one or more parts of its course, thus sometimes taking place to such an extent as to act as an impediment to the passage of the feces, and consequent production of diarrhea. In the portion of the gut along which may prove most abjectly in the way already mentioned or from the distended colon impeding the function of other organs, or as some authors think, more probably, from the absorption of a portion of the retained gases, and the circulatory changes of the thus vitiated blood through the system.

The explanation given by [name] of the retention of feces in that variety of chronic dysentery which is accompanied by an ulceration or scirrhosis of the intestines, is that the new mucus is probably from the pain in conveying them through the ulcerated parts, being greater in this than in the other varieties, and from the more powerful secretion of the bowels of the animal economy by which efforts are made to ward those motions of mucus which induce pain in their pass. This opinion, however, would seem to imply a power over the motions of the intestines which are the result of gas, although we may be able to resist the passage of fecal matter from the rectum, we cannot.
Diagnosis of Chronic Dysentery

Impede its progress through the rest of the canal.

Another way in which this form of the disease may terminate is by an abscess in the liver, the symptoms of which are often obscure, and should therefore be carefully watched for.

The duration of chronic dysentery is very variable in some cases lasting for weeks in others for twelve or eighteen months and in some even longer.

Diagnosis. When the abdominal pains cease, and the intestinal evacuations are diminished in quantity, the appetite strengthens and flesh increases, and an improvement taking place in the digestive organs a favourable opinion may be formed of the issue of the case. An improvement in the general health of the patient, may also be looked upon as a favourable appearance, as it indicates a more healthy state of the digestive organs, and it has been observed that in some cases the appetite is improved, and the strength and flesh restored, before the stools become perfectly natural, and are still frequent and the intestines more easily excited by imperfectly digested food.

The occurrence of increased secretion from the bronchia and nasal membranes has sometimes acted in checking the dysenteric secretions, and in some instances this effect has been permanent, but in general the dysenteric symptoms return when the catarrh and cough cease. In the same way, it is often observed that when dysentery is more
Prognosis of Chronic Dysentery

commonly diarrhoea, attacks of patient affected with a
chest complaint, as tuberculosis or chronic bronchitis, the pri-
mary symptoms are much relieved during its continuance.

I had occasion last autumn to treat a case of this disrup-
tion, which occurred in an old soldier who had been long-
effected with chronic bronchitis, from which he was much-
reduced, he was attacked with dysentery, during which the
symptoms in the chest were much relieved; the expectora-
tion, which was previously very copious, was greatly
diminished, but when the dysenteric symptoms were re-
newed, those in the chest returned with increased severity
and ultimately proved fatal.

An unfavourable prognosis may be formed when the
symptoms become more severe, when the marked evacuations
are increased, consisting of various blood, or bloody purulent
discharges, or containing portions of the villous coat of the in-
estines, and are accompanied with increasing debility, when
the digestion is gradually impaired, and the appetite lost, and
when the patient passes restless and feverish nights.
Chapter IV Complications

The complications which we shall more particularly describe are those with disease of the liver, spleen, and some other viscera in the abdomen, with different forms of fever, with scurvy constituting the scurvy disease, with worms in the intestines, with hemorrhoids and with inflammations.

Section 1. Dysentery complicated with Disease of the Liver

The complication of dysentery with disease of the liver or the hepatic dysentery of tropical writers, occurs most frequently, though not exclusively, in the subacute and chronic form.

The existence of hepatic inflammation and dysentery seem not to be so frequent, as has been generally believed.

In a valuable table given by Sir George Bellinger, it appears that out of the depositions of thirty-five cases of dysentery in India allegro in the liver was found in four only, and in these the death case with more propriety be attributed to the diseased condition of the intestines, for in one mortification had taken place in the sigmoid flexure and rectum, in another in the sigmoid flexure alone, in the third in the caecum and in the fourth the lower part of the colon was found laid externally, and extensive ulceration was observed on ligaturing open.
Dependcy complicated with Disease of the Liver.

Mr. Hampstead states that in his practice hepaticoceur in the proportion of one case in ten, in a much smaller proportion in the severe variety, and not at all in the mild variety, he also mentions that he has seen cases where disease of the liver had been before death, predicated as the cause of the fatal symptoms, and in which it was afterwards found for perfectly sound." Dr. Alcronelie observed that out of thirty-four cases of chronic dependency from India, Ceylon and the coast of Africa," reported by Dr. Annet, that gentleman found disease of the liver in none only.

Dr. Waddell, in the account which he has given of the disease which prevailed among the British troops at Namoogum, makes the following remark on this subject. In all the observations I have made of those who died of the disease depending on organic lesion was ever discovered in this region (the liver) the chlor was in a mate to show how little cirrhosis there was in liver complaint, that only two cases of hepatic came under his care.

Mr. Gardiner on the other hand has doubted and even denied the existence of simple dependency in the East Indies, and states that it does not differ in nothing from bilious and liver fluxes so common to be met with there." But as Dr. Johnson remarks, Mr. Goodall's experience was confined to hospital practice on.

Dependent complicated with Disease of the Liver

The Coromandel coast, where almost every case that he
metypep was connected with hepatica; and where the discharge
of vitelline bile occasioned by the disarrangement in the liver,
and the heat of the climate, led him to consider the people
of India as entirely different from the habitants of Europe.
And the same author relates but one case, to show that
hepatica may occur in India, unconnected with bilious
or hepatic fever."

Dr. Cheyne mentions that the functions of the liver
and skin were disordered from the commencement of the
disease, and continued so until its termination. And it may
be remarked that the liver seems to be more frequently affected
in Ireland than in this country. Dr. Lebercrombie has only
observed it in one or two chronic cases.

The complication of hepatica with disease of the
liver renders it much more difficult of cure as the one dis-
order tends both to produce and perpetuate the other.

The bile may be excited more or less in excess, or there
may be changes without any actual disease of the liver being
present; and the colic and other cathartics used for
the cure of the disease may in some instances be the cause
of the disarranged function of the liver.

In hepatic hepatica it is important to remark the
nature of the connection of the two disorders. In some cases
the marked retention of bile or structural disease of the liver.
Dependency complicated with Disease of the Liver

...preceded the dysenteric affection, and in such the latter may often be considered as merely a symptom of the former disorder. In other cases however, particularly those of a subacute and chronic character, the disease of the liver occurs concomitantly, and is frequently produced by the dysenteric affection. If seldom yet sometimes happens that the disease of the liver and bowels originate at the same time and it is remarked by Dr. Annexley that in those cases however which come to the state of the predisposition in which the bowels and biliary organs may be at the time, and the nature of the exciting causes, disease is nearly simultaneously produced in those visera, it will generally be found an closely analyzing the phenomena, that the disturbed function of the liver is remarkably efficient in producing the dysenteric affection, and that a constricted state of the biliary ducts is evident at its commencement, even although the liver may exhibit no symptoms of serious disorder at that period of the disease...
Dyspepsia complicated with Disease of the Liver

Disorder of the Bowels take place, or when the latter follows disease of the liver of long standing. But when the disorder of the liver and bowel occurs nearly simultaneously, the symptoms of the former are often entirely absorbed in the severity of the dyspeptic affection, and hence disease of the liver is sometimes discovered after death, when the existence had not been suspected during life.

The progress of hepatic dyspepsia in some respects resembles that of the uncomplicated disease. The symptoms presented by it vary much in different cases, or at different stages of the same case. It generally commences with a sense of discomfort in different parts of the body, pallor of the countenance, chill or fever, with a feeling of coldness or uneasiness in the back, griping pain through the bowels, itching and loss of appetite, sometimes attended with vomiting. The evacuations become frequent, generally copious at first, without either mucus or blood having an offensive odour and varying much in colour and consistence, being at first greenish or greenish black, and as the disease advances they become mixed with blood and present every variety of appearance, sometimes thin, or watery with a gotty greenish slime on the surface, in the advanced stage of severe cases they are frequently watery and more or less intimately mixed with blood and present a reddish brown colour like
Dysentery complicated with Disease of the Liver

appearance, and as the disease proceeds they resemble much those indicative of the last stage of simple dysentery. They vary in number, being more frequent during the night, and usually accompanied with chillsing at the anses, and severe tenesmus, proclampsia and also not infrequently occurs. There is generally difficulty and pain in passing urine, and when it is high-coloured, even green, scanty and fountain-like, Mr. Ferguson considered it as a sufficient diagnosis of the hepatic affections, and, while, in speaking of the dysentery of the Veil and Spinal, he states was a "never failing symptom" in the aggravating form of the disease.

The patient also has in general a feeling of weight and uneasiness, with pain in the epigastrium increased by pressure, and often extending to the region of the liver, right scapula and sometimes to the right shoulder, anxiety at the precordial parts of dyspnoea, a troublesome cough with pain or uneasiness in the right side of the thorax, vertigo and sometimes vomiting.

The same remark is applicable here as in simple dysentery with regard to the pulse, for little confidence can be placed in it particularly as regards its frequency in marking the state of the disorder, even in severe cases.
Dependence complicated with Disease of the Liver

It sometimes indicates little danger up to the last stage of the disease, in others it is only slightly affected through the day, becoming quick and irritable towards night, and in some cases it is irregular and even intermittent. The tongue also varies much in appearance, at first it is generally white and the papillae erect, or covered with a yellowish fur. In the advanced stage of the disease it becomes clean, smooth, dry red and polished, or presents a dark crust, particularly at its base. There is urgent thirst and the patient expresses a great desire for cold drinks. The surface of the body has a dirty appearance, with a thin, harsh, dry feeling, in some cases it is covered with a greenish perspiration, and towards the last stage of the disease offensive sweats often occur. The countenance is anxious and expressive of much suffering, and in some instances has a lifeless appearance indicative of much danger.

When on inspection the liver is found diseased, it must not always be concluded that it was the cause of the Dysenteric symptoms, and as such overlooked during life, for as we have already mentioned, it sometimes occurs as a consequence of the Dysenteric affection. In some cases this may probably be owing to the extension of the inflammation along the afferent canal to the liver, but it is much more probably
Depend on complicated with Dilatation of the Liver caused by the determination of Blood to the intestines, including an increased flow in the portal system and thus augmenting the secretion of bile which is often acid or otherwise altered in its properties, this is more certainly produced when the liver is in a state of congestion and when there is an accumulation of bile in the ducts and gall bladder. The collection of solid and other vitiated matters in the intestines may act as a source of irritation to the liver and tend both to disorder the bile and even produce a morbid condition of the substance of the organ by being absorbed into the circulation and thus vitiating the blood in the portal veins. This is rendered more probable from physiological having now proved that the contents of the lymphatics are not only slightly intermixed with those of the veins, in other ways besides the termination of their largest branches in the veins of the neck, but that the small branches of the veins themselves have the power of absorbing, at least as far as regards fluid matters.

When the disease of the liver thus supervenes on the simple form of Dependancy, the symptoms which indicate it are often very obscure. The patient generally becomes irritable, the pulse quick, the tongue dry, sometimes presenting a dark tip, the stools are constantly passing in an appearance, being at one time vivid and dark...
Dependng complicated with Disease of the Liver.

As another green and streaked with blood and as the disease advances, they often become ochre-like, or appear intimately mixed with blood and have a reddish brown colour. There is also in general irritability of the abdomen and often pain in the region of the umbilicus.

In the chronic form of Hepatic Depentary, the symptoms are less severe and not infrequently approach those of diarrhoea, there are griping pains about the umbilicus, but little or none is experienced on passage in the course of the colons. The evacuations occur less frequently than in the acute variety, they vary in appearance depending principally on the condition of the bile, being sometimes dark green indicating a morbid state of the blood, at other times they are clay coloured or white owing to deficient or obstructed secretion of bile, or they may be dirty offensive and watery, in some cases they resemble yeast or cream, or are slimy with broken down food and half digested food. In addition to the other ways in which the contents of an hepatic abscess escape, the matter more infrequently finds its way into the intestines and is observed in the evacuations, either by means of the ducts, or from adhesions forming between them = —planted surface of the liver and a portion of the alimentary canal. The parent matter is however in some
Dependency complicated with Disease of the Liver

cases so intimately mixed with the seat of the eva-
uation as to render its difficult of detection.

The tarryness and decumbence are seldom very
awake and sometimes little complained of. The
patient often has a feeling of fullness or distress or
pain at the epigastrum right side of the thorax and
hypochondrium, but even when these symptoms are
absent, the presence of the hepatic affection may some-
times be detected by the livid sallow countenance, very
appearance of the skin, great anxiety and despond of
spirit; the eyes also have frequently a haggard appearance,
and the patient has more uneasiness when lying on any
but the right side.

Although jaundice sometimes occurs in dysentery
connected with disease of the liver yet that is by no
means essential to its production, for it may be caused
by the absorption of bile from the alimentary canals
as has been already mentioned in acute uncomplicated
dysentery; or it may be owing to obstruction of the biliary
ducts, or a hemorrhage of the lining membrane of the
duodenum preventing the escape of bile at the
orifice, without any structural disease of the liver.

Hepatic Jaundice as well as originating may also
terminate in disease of the liver, or in other change
in that organ, as well as in the different ways
already mentioned, in treating of simple dysentery.
It seems unnecessary to describe the symptoms mark-
ing the fatal termination of this affection, as those at-
least enumerated in the uncomplicated form of
the disease, denote the same result in hepatic dysen-
tery, and when conjoined with those indicative of
danger in the liver affection, they must of course be
looked upon as still more likely to lead to a fatal
issue.

Section II

Dysentery complicated with Disease
of the Spleen, Pancreas,
and Mesenteric Glands

The complication of dysentery with disease of
the spleen is more frequent in the natives of India
than that with the liver, and with regard to the con-
junction of dysentery with other diseases in the Fan-
insula Sir J. Macgregor makes the following state-
ment: I found that the viscera most frequently
affected was the spleen, next to that the liver, which
was indeed diseased in nearly an equal proportion
of cases with the spleen, the mesenteric glands were
not unfrequently found affected, and sometimes the
pancreas was one seat of disease.

1. Trans. of Med. Chin. Soc.1
Dysentery complicated with different forms of fever either occur previously to or contemporaneously with or be produced by the dysenteric disease. There is nothing particular in the symptoms of this complication, except in those cases where the spleen is much enlarged; it is often difficult to detect the disease and action in that organ.

If emaciation has proceeded to a considerable extent and the abdomen is hard and full it may be suspected that the pancreas and mesentery are enlarged. These complications most frequently occur in subacute and chronic dysentery in malaria districts and when the disease is preceded by periodic fevers. The patient often complains of aching pains in the back and the countenance has already appearance, with a dry skin and much emaciation.

Section III

Dysentery complicated with different forms of fever.

Instead of the symptoms which is symptomatic of local disease, dysentery is not infrequently found in connection with different forms of infectious fevers as the intermittent, remittent and dysentery, and we have examples of its combination with each of these in the dysentery that occurred in the Linnean Society.
Debility complicated with intermittent fevers, as we have already so often referred.

When persons are exposed at the same time to the cause of debility, as well as that of remittent and intermittent fevers, as the external application of cold and moisture, which in certain cases produce the former disease, and much menstruation which induces the latter, it is not surprising that these diseases should occur separately in different individuals and conjointly in others. Many instances of their combination might be quoted. We have already noticed the connexion that exists between the remittent fever and dysentery in Jamaica, as described by Dr. Hunter, the one often changing into the other, and both frequently complicated with various degrees of severity.

The following passage also which is given by Godwin in a note, shows the relation which sometimes subsists between intermittent and dysentery. Memorabilia est observationis hoc stranendo quad hoc anno multae fere intermitentes, et Diapentie simul laborant, quae vero intermittentes Diapentie. In vicissitudines epidemiae gravis efferre intermitentes sola, ut quinqudecim ultra in eadem anno laborant, in alibiis paullum remotis, multis viciniis censebatur, sed in fine
Dysentery complicated with Intermittent and Malaria Diseases in Cuba. Dr. Mosely remarks that in Cuba the stools are more frequent and all the symptoms more aggravated, at those hours when the current fevers are in their exacerbation and the reverse when those fevers are in their recession. The same observation is made by Dr. Vellozzi also adds, that when the disease terminates early in death the fever has also disappeared, but often in producing the fatal scene; when the disease has a diarrhoea, the departure of the fever is evidently marked, commonly in fourteen or twenty days, and when it goes off without any consequence, the fever generally terminates before the fourteenth day, usually about the seventh or eighth. The similarity which in many respects subsists between dysentery and the tertian fevers in Minorca induced Dr. Leghare to try the effects of bark in the former disease.

Dysentery more frequently complicates the advanced stage than the commencement of intermittent fevers when disorder of the liver and other abdominal viscera has also been produced, in such circumstances it often accompanied or followed by general dropsy, the patient suffering considerably until relieved by death.

We may easily understand why dysentery and other
Dependency complicated with Typhus

effusions of the bowels as well as in the heart. 4 years are

frequently passed in this country than they were about

a century ago, the soil being now more thoroughly drained

and the atmosphere less moist.

Complication with Typhus—The complication is of

greater importance than that which we have just descibed,

as it is considered by many as the only form of the disease

to which "bullous Typhus contagios" is strictly applicable.

It occurs among the poor in seasons of scarcity, when

barracks, garrisons and crowded ships, when a number of

persons are collected together, and little attention is paid

to cleanliness and ventilation. It commences with prostration

of strength, headache, vertigo, increased sensibility to

light, griping and purging, and sometimes pains in the

limbs. To these succeed delirium, anxiety at the precordia,

foul exanthem, tongue which soon becomes dry and presents

a brownish coating, the thirst is offensive. The pulse is at first

frequent and small and as the danger increases it becomes

intermitting and weak. The defecations are frequent, scanty,

preceded by tenesmus and tenesmus, and composed of

mucous, mixed with more or less dark coloured blood and are very

foul. The urine is scanty, thick and high coloured.

The severity of the tenesmus and tenesmus is generally less

as the disease advances, and not unfrequently about

the ninth or eleventh day a diarrhœa discharge commes
Dysentery complicated with Typhus

on which occurs and the patient rapidly. Between the fourth
and sixth day a milky or fetid, cellulotic eruption sometimes
appears on the neck, chest, arms, or abdomen. Epigastric
is not infrequent in young and robust persons, but it
does not prove critical. As the disease proceeds, the surface
has a dark appearance, the body and evacuations emit an
offensive, penetrating odor, and the fever is attended
with low delirium. If the disease is not arrested, death
may occur from the sixth to the twentieth day, but in
some cases even sooner, while in others life is prolonged
for some days beyond the latter period.

We have several examples of this form of the disease success-
and some of which may be mentioned.

The following related some circumstances regarding a dysen-
tery, which prevailed in 1628 in the Town of Batavia, which
was at that time to closely besieged, that the waters of the
river, and the air, were tainted by the putrid carcasses of
men and beasts dead of phthisis or their members. He
mentions four cases, out of six hundred which are refer-
able to the combination we are now considering. In
one, he states, that the subject of it fell into a continial
fever, and afterwards into a dysentery, than epidemical
and died, notwithstanding every possible assistance in the
last stage of his illness there appeared black and livid spots
over his body, with a cold and slick sweat.

1 De Medicina Indorum Tenue
Dysentery complicated with Typhus

The description given by Clarke of the Bengal dysentery also exemplifies this form of complication, and he observes that the dysentery would rather a symptom of the fever than an original disease. It set in for the most part with copious stools, slight rigor, disorder of the stomach and visceral vomiting, at first exactly resembling the fever, but the paroxysms did not run so high, and the patients were not so apt to have in a day or two something like the dysenteric symptoms made their appearance, and were attended with the greatest prostration of strength, and spirit."

The account given by Signer of the dysentery which prevailed at Ninequean also furnishes us with another example and in speaking of it Sir John Hingle observes, that the violence of the symptoms mentioned by him, exceed any thing he had seen before the first rigor, but when many soldiers, even with the most favourable case, were crowded in the hospital, the dysentery at last appeared with all the violence that I did at Ninequean, and after remarking that dysenteric patients are liable to a low and dangerous kind of fever, he states that "the most fatal form of fever, which so often attends the dysentery of armies though not essential to it is the hospital or jail distemper, which at all times infects soul and crowded wards, but never so much as where they contain men labouring under a putrid disease. This form continued with bloody flux was generally mortal."
Dr. Rogers had noticed the constant connexion that existed between the epidemic fever or malignant dysentery of 1828 and the malignant dysentery he remarks, that the victims of 1728 and 30, during which time the fever was again renewed, were notoriously infamous for bloody fluxes of the worst kind, and that the dysentery which first appeared the epidemic fever second to partake of the same common cause.

In his account of the dysentery of 1813, Dr. Phylips observes that intermittent fever, which is a rare disease in Dublin, was seldom seen during the time that the dysentery prevailed, and adds that he was informed by Mr. Lloyd that scarcely a case of this disease occurred in a very equal tract which lies between Lamborough and Roundwood, and is about five or seven miles from Dublin, while continued fever was epidemic in that district, and the same observation was made in other parts of the county where ague is often endemic. It is pretty clear, therefore, that the cause of the dysentery of 1813 differs from that which also produces intermittent fever, the disease of 1813 neither belonging to that great variety of dysentery which originates in causes that are also productive of continued fever. The dysentery frequently occurred at that time when there seemed the greatest liability amongst the convalescents from fever to relapse. It was sometimes converted into a fever, and the latter disease was frequently changed into dysentery, and during convalescence from dysentery.
Deperty complicated with Scurvy

section IV

Deperty complicated with Scurvy

Scurvic deperty as well as deperty in all its forms is much less frequently observed at the present time than it was formerly, particularly during long voyages, owing to the prophylactic means which are now adopted. But in those cases only to which this combination is amongst so infrequently makes its appearance in a very destructive form, both in ships and in seiges, campaigns and in other military services within the tropics.

The disease is generally preceded by a bad state of health, marked by varying affections, diarrhea and emaciation.

The vesications soon become frequent, though in general not so much so as in acute deperty nor are the furuncles or tumours so severe. The stools present a green

Dysentery complicated with Jaundice.

or jaundice, appears, with mucus and dark, gummy
blood, mixed more or less with yellow matters. It seldom
happens that the natural gore are retained the bowels be
mg in general easily moved and the stools sometimes
expulsive. In some cases the functions of the liver is so much
altered, in others there is an augmented secretion of
marked state of the bile which increases the number of the
emaciations and the excavation of the mucous surface of the
intestines, while at other times it is much diminished in
quantity or nearly entirely suppressed. The urine is gen-
errally scanty of a dark, muddy appearance and sometimes
sanguineous. The general movement of the system differs
from that accompanying acute dysentery being more of
an asthenic character, the pulse is at first small and
weak and in the advanced stage of the disease it becomes
accelerated, but still continues small and feeble. The count-
iane has generally a dull pale colour, or a livid dark-
spotted appearance, in some cases yellow and in others
slightly edematous. The gem are spongy of a dark pur-
pleish colour, tense and disposed to bleed from the slight
est injury, the tongue has a flabby appearance and
frequently raw with a red or reddish brown colour.

The abdomen is taut upon pressure, in some cases drawn
inwards, in others it is expanded, which either precedes or
subsides upon the dysenteric symptoms. When the acute
Dysentery complicated with scurvy appears first. It has been partially and occasionally entirely removed by the occurrence of the dysentery, on the other hand it sometimes happens that when the dysentery disappears parts is instead. Darkish patches, purplish patches or extensive edemas appear on the surface, particularly in the hands and lower extremities, which are also often cold and atrophied. The cavities of old ulcer become lined and again break out. The stomach is frequently very irritable and vomiting prevails, in severe cases or in the advanced stage of the disease. The materia urinae is often a bilious bloody or gumma fluid, accompanied with distressing flatulence. Bradachy a feeling of weakness with pain in the hypochondriacum, about the attachments of the diaphragm and also in the loins is often induced by the constant vomiting.

The patient loses all relish for salted meat or the food on which he had previously lived, and has an ardent desire for fresh meat, vegetables, fruit and vegetable acids, spices and also for milk and other substances which cannot be procured at sea.

In the advanced stage of the disease portions of the villous end of the intestine are observed in the evacuations, often accompanied with a profuse discharge of blood, coloains of the surface and great debility. The anus is sometimes excoriated and the sphincter not infrequently becomes paralyzed. The patient is much emaciated and his distemper is increased in...
Depend very complicated with leucy
some cases, by the ulceration of the gums and their separa-
tion from the teeth which become loose, the gums also-
sometimes bleed copiously, and the teeth drop from
their sockets; these symptoms tend greatly to increase the
great dyspepsia which goes along with the advanced
stage of the disease. This affection sometimes goes into a
state of chronic diarrhoea or hystery.

It is worthy of remark that the dyspepsia some-
times continues when the scarlet hectic which it is im-
proving or after it is removed, while in other cases it
rises again before the removal of the scarlet hectic,
and even when other symptoms of severity are increased.
The prognosis may be favourable when the symptoms
improve under the means employed, when we have
a proper diet at our command, when the patient's
strength increases, and the cause of the disease are re-
moved. But it will be unfavourable in those circum-
stances where we have not the adequate means in our power
to obviate the scarlet hectic tendency, when there is great
delay and evacuation. Lintern stock, copious di-
charge of blood from the intestines, and the evacuation
of portions of the skin's coat, either of the stools of the
breath, or of the patient, which is sometimes accompanied
with insensibility, ill conditioned ulcers, cedema of the
extremities, dyspepsia, excreding of greanous matter,
Dysentery complicated with Worms–with Hemorrhoids
hyperesthesia, a rapid pulse and almost imperceptible pulse; paralysis of the sphincter ani and lip of the scrotum.

Section V

Dysentery complicated with Worms

Among persons in unhealthy situations and habits of hot countries this complication is often observed, and in such circumstances the dysentery commonly presents an arthritic character. Their occurrence is often considered as unfavourable, and the frequency of their occurrence has induced many to consider them as a predisposing cause of dysentery. Different species are sometimes observed, but the large roundworm is the most frequent. They are often discharged by vomiting, as well as by stool. "It was very common," says Monroe, "for the sick to vomit up Worms of the round kind, or discharge them by stool."

Section VI

Dysentery complicated with Hemorrhoids

We have already mentioned the symptoms which enable us to form a diagnosis between these two affections, but they may coexist with each other. In such circumstances, the liver is often affected, and the tenesmus severe, copious discharges of blood frequently take place from the hemorrhoidal.

1st of the Military Hospitals in Germany 1843.
Dependently complicated with Rheumatism

Dependently and those together with the prolapse of the
vessels at stool, and their strangulation when
the spasm of the lower circular fibers of the rectum
is great, often alarm the patient as well as give
by augmentation his sufferings.

Section VII

Dependently complicated

with Rheumatism

The frequent association of dependently with
rheumatism has given rise to the opinion, adopted
by several authors, that the former disease was rheu-
matism, and hence it has been called rheuma-
tism of the intestines. The connexion of these two diseases
is mentioned by Albinus, Holl, Richter and many other
authors. Albinus assures that he has often seen
persons attacked with pains resembling those of chronic
rheumatism, after they had recovered from dependently
without rigor or any other symptom, fever preceding or
accompanying them, he has sometimes seen them
affected with dependently and rheumatism in whom he
cured both by the same means. He had likewise
known the gripings of dependently accompanied with
severe pains of the whole body and particularly of the
fingers, which are generally the seat of rheumatism.

He also remarks that rheumatism has not only

1 De Dependentia Commentarii
Deperty complicated with Rheumatism

succeeded upon Deperty and that the reverse has
also happened, and one of the cases which he relates is that
of a woman who had suffered from severe general
Rheumatism which was seduced by bleeding, blister
and quackism and in one day she was attacked by
true Deperty, this also yielded to the means
employed, and the Rheumatism returned though
with less violence to the joints. The same author
states that he has observed on using purgatives in
acute Rheumatisms that the evacuations have opened
the dysenteric character, accompanied by griping
and composed almost entirely of mucus, sometime
so acrid as to induce nausea, and this effect was not
produced by any particular purgative. Many other
passages might be quoted from different authors who
have noticed the connexion of these two diseases, but
there seems not to be sufficient evidence of the inflamma-
ting action in Dysentery being of a Rheumatic
character, as is suggested not only by authors already
mentioned but also by Wagner, Fisher, Sims, Tyndall,
Wargans and others. These two affections may some-
times coexist or the one may succeed
in the disappearance of the other. Rheumatism is most
frequently found connected with dysenteric produced by cold
and moisture or changes of temperature and terrestrial
Morbid Anatomy of Acute Dysentery

examination, causes which otherwise occasion the
former disease.

Part Second
Morbid Anatomy

Chapter I
Acute Dysentery

In examining the bodies of those who
have died of dysentery it is the effects of the disease
rather than the disease itself which we generally
observe, but even in such cases from the nature
of these effects and the condition of the parts last
changed we may infer the state of those most dis-
organized previously to the commencement of
the structural arrangement, and as the changes
produced are evidently the result of inflammation
we must conclude that the disease is one in a
inflammatory nature. A circumstance which it
is of importance to bear in mind in regulating
the treatment which should be followed particu-
larly in the early stage of the disease.

On opening the abdomen a considerable
quantity of offensive gas often escapes and if morti-
fication has occurred an intolerable smell is pro-
gressively emitted. An effusion of serum is found in
Marbid Anatomy of Acute Dysentery

The cavity of the peritoneum which is in some cases mixed with coagulable lymph. The bowels are generally found distended with flatus, the large intestine has in some parts a tough, in others a membranous feel, the surfe presents various colours, which differ in different cases and in different parts of the bowel in the same case. In some instances however it presents its natural appearance, and in others distinct marks of inflammation may be seen. These appearances on the external surface generally depend upon or bear some relation to the internally, but this is not always the case. The large intestine is also variously dilated and elongated, and adhesions are often observed uniting the different viscera together or to the peritoneum. The colon is often found contracted in different parts of the course, the contractions have sometimes the appearance of a ligature passed round the canal, in others they occupy a considerable extent of the intestine, in the more chronic form of the disease they are often firm and almost cartilaginous. Several of these may exist together, the portion of the gut placed between them being much distended, and containing either flatus with peculiar matter and excrement.
Marbid Anatomy of Acute Dysentery

In some cases air and even the other contents of the intestines are found to have slipped into the cavity of the abdomen from the cavity of the bowel, having given way, this generally happen in a situation where ulceration has been going on on the internal surface. The sigmoid flexure of the colon, the cæcum and the appendix vermiformis are generally found largely involved in the marked changes and the only explanation with which we have met is a very ingenious one offered by Sir George Hallingall, which we think may at least in some degree account for the fact.

The cause of this may most be accounted for by their dependent situations with respect to the origin of the artery that supplies them. This only refers to the cæcum as long as we remain in the erect posture for the sigmoid flexure is then as high as the origin of the artery to which it is supplied; but, adds Sir George, when the patient becomes sidended, and lies alternately on the right and left side, they both come alternately to occupy a situation very favourable to any accumulation of blood that may be disposed to take place, and the position of the parts which have so great an influence in other cases will probably operate more

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Morbid Anatomy of Acute Dysentery

forbids here, as the veins of the abdominal viscus are distinct of values, and although, upon the whole, the blood is emitted in flowing through them by muscular pressure, yet it is not as in the veins of the extremities, emitted through each individual trunk by the action of circumjacent muscles.

Although some have already mentioned this may in some degree account for the effect which we are considering, yet it is probable that it is not the only cause, for a similar circumstance (namely, both the extremities of the same canal being affected at the same time) is seen in other cases where this explanation cannot be applied, and it is likely that the connexion which we formerly noticed as being observed by Dr. Murray to exist between disease of the ileocecal valve and the stomach producing vomiting is of the same nature. It is difficult however to say what this connexion may be. To refer it to sympathy is only to express our ignorance, and we must therefore in the meantime rest satisfied with a knowledge of the fact.

The appendicular ulcera, are also affected, they are reduced in size and have a gelatinous appearance.

The stomach seldom exhibits any signs of disease and the same remarks is generally applicable to the
small intestines, but in some cases patches of an inflammatory action may be observed particularly in the part near the colon.

The omentum is sometimes found adhering to the convolutions of the intestines, to the lining of the pelvis, or to some part of the abdominal peritoneum. It is generally firmer than usual, has a tough feel or it may be shriveled, drawn up to the arch of the colon, or to one side. These appearances are more particularly observed when the disease has been protracted, complicated with disease of the liver or when general inflammation of the peritoneum has been excited by the escape of the contents of the intestines into the abdominal cavity as we have already mentioned.

Decays have been found between the lamina of the omentum mesentery and muscle colon (clamp field).

The coats of the large intestine are often deficient in vital cohesion and lacerated. With the greatest care they are also frequently considerably thickened. On laying it open, different changes are observed; the mucous coat in some parts presents marks of inflammatory action, being of a bright red colour, and minutely injected, in some it is abraded in others.
Morbid Anatomy of Acute Dysentery

It has passed into ulceration, and in some to ulceration. The mucus membrane is sometimes removed to a greater or lesser extent, in some cases several of these ulcerations exist in others only one or two are seen, the intervening portions being easily removed from the subjacent tissues and in some instances so far separated as to allow a probe to be passed under them, and their edges present an irregular and elevated appearance.

Ulcerations may exist either alone, with or independently of the appearances now described; they may be found in any part of the large intestine, but they are most frequently observed in the colon or the sigmoid flexure and rectum. They are either placed at a considerable distance from each other, in which case they are distinct and large, or they are small, numerous and in clusters. Both these appearances are sometimes observed in the same case in different parts of the intestine. They vary frequently present with a hard and elevated edge, are raised on a thickened or hardened base, or exhibit elevated, fleshy granulations on their surface, and in some cases the edge are dark, and the centre presents a sloughy appearance. They are some
Morbid Anatomy of Acute Dysentery

Times confined to the mucous coat. At other times, they extend deeper and occasionally perforate all the coats of the intestine. Baker mentions the case of a woman who hadlaboured under this disease for twenty-one days, and on defecation he found the omentum distended with air, the transverse arch distended and perforated with several fine holes, by which a brownish matter mixed with gas, had escaped into the cavity of the abdomen.

We are more mentioned as a cause of dysentery by Hippocrates, they are also noticed by Galen and Celsus.

Sir George Balingoll remarks that he has seen parts of the villous coat present the puckered appearance which has been so aptly compared to small pops. Dr. Hunter among other marked appearances mentions tubercles on the internal coat of the gullet, which are at first small round of a reddish colour, and not more than one tenth of an inch in diameter, becoming paler as they enlarge. In this stage a small crack is observed on the top, with a slight depression which gradually increases. The tubercle, for though it contains no fluid, I do not know anyone more expressive of its appearance, is seated under the villous...
Marbled Anatomy of Acute Dysentery

coated between that and the muscular coat." These ulcers contain a dense, thick subcutaneous, as the opening on them enlarge, the edges become prominent, and the base rough and elevated. They are sometimes separate, at other times they occur in clusters, becoming confluent and transforming a rough, ulcerated surface with an indurated base. The ulcer is generally oval, with the largest diameter being across the intestine, the mucous membrane between the ulcer is frequently very red and tender, and has a glistening appearance. These ulcers in the intestines have been noticed by several other authors as Marshall, Whipple, Shipman, Hahn, and more. They are the enlarged indurated and hypertrophied mucous membranes, sometimes produced by inflammation.

Fluid from perforating the natural ulcers are sometimes very thin in the upper end of the large intestine, but sometimes are rarely observed.

The appendix vermiformis besides showing marks of disease externally is sometimes found contracted, ulcerated internally, and in some cases almost perforated.

The intestinal surface of the large intestines is described by Miss Priestley as presenting every variety of color. In some instances nearly the whole of the mucous surface of the cecum and colon present a greenish hue, and every depth of color from a pale gray green to an
Morbid Anatomy of Acute Typholy

...
Morbid Anatomy of Chronic Diaperity.

In some instances the inflammation extends from the lower to the cellular layer, connecting it with the surrounding parts, leading to the formation of an abscess, which sometimes communicates with the colon, and in such cases the matter is often discharged during the life of the patient.

The internal coat of the stomach in general presents no particular marks of disease. The small intestine usually contains a quantity of fetid air, and in the acute uncomplicated form of the disease their internal coat, like that of the stomach, does not in general present any particular marks of appearance.

Chapter II.

Morbid Anatomy of Chronic Diaperity.

The appearances which we have just described belong more especially to the acute form of the disease, and we shall now mention those which are more particularly observed in the bodies of those who die of Chronic Diaperity.

On laying open the abdomen in such cases, the peritoneum is sometimes found, over a greater or less part of the surface, to be more vascular and thicker than natural, and to exhibit other appearances of inflammatory action; numerous adhesions are also observed between the adjoining portions of the peritoneum, particularly when the ulcers have nearly perforated the coats of the intestine.
Marbid Anatomy of Chronic Dysentery.

The contents often exhibit the same appearances as those already described, and the intestines are distended and flat.

Their coats are thickened to a greater or less degree, similar to those of the large intestine, which are also sometimes dark and indurated.

Constrictions of the intestine are amongst the most frequent marks observed at dissection. They are sometimes few in number while in other cases they are more numerous, it is principally when situated in the rectum that they have attracted attention, but it is important to observe that they frequently occur in other parts of the large intestine. As regards the comparative frequency of these lesions (strictures) in the stools and colon amongst Europeans in India, we may state our belief that the colon is much oftener affected than the rectum.

Then they exist to a great degree the colon and small intestines become distended, and their internal surface is often inflamed and ulcerated, in such cases the liver and pancreas are also frequently diseased. In connection with the esophagus and the bowel state of the colon, the internal surface of the large intestine presents extensive ulcerations, particularly in the colon and sigmoid flexure.

When chronic dysentery follows an attack of the acute disease, the morbid appearances are most frequently confined to the large intestines. But in certain circumstances, as when it is complicated with disease of the liver, the small intestine
Morbid Anatomy of the Dysentery of Temperate Climates

are also found diseased, the mucous coat is thickened pre-
rent marks of inflammatory action it is sometimes ulcerated.
The mucosa is often observed to be more vascular than usual,
and the glands are frequently observed to be enlarged hardened
and obstructed, particularly in the situations corresponding
to large ulcers.

Chapter III

Morbid Anatomy of the Dysentery of Temperate Climates

Dysentery is seldom a very fatal disease in this country; but the
morbid appearances found upon dissecting resemble more or less
those which we have described above. Of those who had such
an extensive opportunity of observing these appearances in the
Dysentery that occurred in Ireland, found the intestines in some
cases greatly distended; he mentions one in which the small
intestines were seven and the large intestines nine inches
in circumference, and 15 inches from the anus an extensive
hard structure was found, through which the fingers could
not be passed. The coats of the intestines were nearly an
inch in thickness, which was principally occasioned by a
dense white fibrous matter situated between the peritoneal
and muscular coat. The inflammation of the mucous mem-
brane was sometimes very extensive being principally observed
in the large intestines, but for 3 or 4 inches above the
sphincter it was occasionally pretty bound; in some cases
it was abraded or ulcerated, in some copiable lymph was
Morbid anatomy of complicated Dysentery—The Liver

seen upon it; in many instances numerous holes were observed particularly in the lower part of the Liver, & the Pleura of sufficient size to admit the head of a pin regularly round, generally fascicular in the centre with elevated edges.

These apertures, he observes, were at first supposed to be small ulcers, but dissections made after Dysentery had attained an advanced stage left little room for doubting that they were the ducts of the mucous glands enlarged and in the advanced stages either elevated or connected with a cyst formed by the lining membrane of the duct, which secreted a gelatinous matter whereof these cavities were often full.

In the dissection of those who died of Dysentery in India, Dr John Pringle observed visceral adhesions also inflammation, ulceration, mortification or abrasion in the bileous canals.

Chapter IV

Morbid Anatomy of Complicated Dysentery

Having described the appearances observed in the intestines we shall now mention those which are seen in the collateral vena cava as they occur in the complicated form of Dysentery. The Liver in many cases of Dysentery is found little or not at all diseased, while in other instances it has undergone various morbid changes, particularly in that form of complication which we have described under the title of Hepatic Dysentery.
Morbid appearances in the Liver

Abscess in this organ is not a very frequent occurrence, but it is sometimes congested or inflamed, or merely altered in colour without any structural arrangement; in some cases it is increased in others diminished in size, and in both these conditions it is often indicated or otherwise disorganized.

Mr. Ferguson, in speaking of abscesses as it occurred in Holland, the West Indies, Spain, & Portugal, describes this organ as being "blackish hard and wasted." Deheyn found abscesses in two cases and great sanguinose congestion in many, and in twelve cases in which also occurred in Dublin, the directions of which are recorded by Dr. Binyon, the liver was diseased in six; but in writing on this subject on a former occasion he remarks that the liver was generally unaffected.

The following table from Mr. Marshall's Medical Topography of London shows the number of cases in which he found the liver affected, and the nature of the affection.

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<th>H. Anglo</th>
<th>N. Inspected</th>
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</tbody>
</table>

Thickening of the coats of the gall bladder, with an accumulation of fluid around it, is sometimes observed. Both the hepatic ducts, and also when the superficial parts upon which occur during the convalescence from fever. The small intestines are generally found to have participated in the disease action, particularly when the small intestine of the liver has been of a chronic character, in such circumstances as those that frequently present circumstances which are sometimes limited, and in others occupy a considerable part of the canal, along with these appearances they frequently show marks of inflammation, and ulceration is also observed particularly at the lower part of the ileum.

When suppurative occurs in convulsion with fever it would appear that in some cases the inflammation in the small intestines had subsided soon after the large became affected, for while the latter presented marks of high inflammation and ulceration as was often observed, the former exhibited a small ulcer, some of which have extended and others have a pale appearance, without any particular signs of increase vascularity in the parts situated between them.

The spleen, and pancreas are sometimes found diseased, the former most commonly when the disease occurs in connection with periodic fevers, the latter in some cases becomes enlarged and presses on the common duct.
Morbid appearances in the Peritonum-Bladder, and Cecal Duplicity in the mesocolon are frequently found enlarged in some cases inflamed and more rarely in a state of suppuration. These appearances are principally observed in those who have suffered from chronic dysentery or who have had repeated attacks of the disease.

In the complicated forms of dysentery, and when the inflammation has extended to the viscous covering of the bowels, the mesentery and mesocolon are more vascular than usual, and even although the ulceraations have not entirely perforated the coats of the intestines coagulable lymph has been found on their surface.

The peritoneal coat and muc of the bladder, in some cases participate in the inflammatory action, and the prostate gland is often somewhat enlarged.

The appearances generally observed on examining the bodies of those who have died of Scorbutic Dysentery are in some cases a contracted state of the bowels, their coats being thickened and having a doughy feel, but more commonly they are found distended with fluid which has a very offensive odour. The vital composition of all the textures of the body is more or less lost, and the coats of the intestines are easily torn. Their internal surface presents a lived purplish or dark...

Morbid appearance in Scorbutic Dysentery

Appearance, with effusion of blood in the submucous tissue, forming ecchymosed patches, and ulceration, ulceration and ulceration of the esophagus, colon and rectum. The villous coat covering the ecchymosed patches may easily be rubbed off, and the ulcers present a foul and dark appearance.

If the patient has passed large quantities of blood by stool, the liver is often found soft and pale, at other times it is soft, spongy and large. The spleen sometimes appears almost semifluid or spongy.

A dark and bloody serum is often found in the cavity of the pericardium and pleura. The heart itself is frequently soft and flaccid, and if the autopsy is made soon after death, the blood in it and the large vessels is semifluid, of a very loose texture, and black colour.

The lungs are frequently found congested and the bronchial membrane dark and ecchymosed. Ecchymosis is also sometimes seen on the internal surface of the bladder.
Chapter 1. Pre-disposing Causes

The frequent occurrence of dysentery in Europe compared with natives in India, seems to depend upon the less tendency shown in the latter to those disorders in the functions of the liver and biliary, this not being so much exposed to the exciting causes from their mode of living, peculiarity of constitution and being liable to inflammatory affections.

There are various circumstances which render Europeans more liable to be attacked with dysentery in warm climates, particularly those who have recently arrived.

The first which is worthy of mention is a plethora state of the vascular system which is not unfrequently produced by the want of exercise, together with a generous and stimulating diet employed on the passage. This is more particularly observed in soldiers and passengers for in certain it is much prevented by their active employment.

All circumstances which favour the formation or accumulation of muriatic secretions in the biliary
Predisposing Causes

Apparatus or intestines will also act as predisposing causes, and passengers on a voyage are often subject to collections of fecal matter in the large bowels which produce irritation in them, or render them more liable to be irritated when exposed to the exciting cause.

"If again," says Dr. Hamilton, "we consider the intakings made into the cavity of the intestines are experemontious, and well understood beyond the usual period, undergo changes, and acquire injurious mechanism; and if moreover we advert to the connexion by sympathy which many of the organs of the complicated animal frame have with the stomach and intestines, we cannot but recognise the great influence which these must have over the comfort, the health, and the life of the individual."

The passage now quoted refers to temperate climates, and we need hardly remark how much more influential these circumstances will prove in persons placed in the situation we are now considering, and where so many other causes of disease exist.

We have already mentioned in a former part of this Essay, that the presence of worms in
Indisposing Causes

The intestinal canal has been supposed to predispose a tendency to this disease, and although by causing irritation they may have this effect, yet from the frequency of their occurrence, particularly among Madores in warm climates, in whom dependency is comparatively seldom observed, it is probable that their influence is not very great. Aingle remarks that "warmers are not to be considered as a cause of the fever, but as concurring with other causes to make it worse." High ranges of temperature act as predisposing causes, and hence hot climates and seasons, by producing an increase and disorder of the splanchnic and other secretions and operations, particularly of from any cause the circulation is determined towards the abdominal viscera.

The inhabitants of a colder climate being more exposed to inflammatory affections, equally on their first arrival in a warmer may also partly account for the frequency with which depopulate attacks persons who have recently landed.

Another and doubtless a powerful cause which predisposes the body to this, as well as other diseases, is the mode of living too frequently adopted by Europeans on their arrival in Inter Tropics.
Indisposing Causes

Climates. Some have considered troops
for Europeans in modern climates to adopt
a full and liberal diet of animal food, from
observing that those of the Native of India, who
subsisted partly on animal and partly on vegetable
diet are stronger and more able to sustain attacks
of acute diseases, than those who subsist more
exclusively on vegetables, but the difference which
exists in the temperament and constitution of
these natives when compared with Europeans, together
with other considerations, show that this opinion
has been carried to too great an extreme, and even in
those tribes amongst whom animal food is
more used, it is seldom carried to the same
extent as among Europeans. For those who
conform to the luxurious habits and rigid
customs in India, generally partake of animal
food at three meals in a day. In the splendour
state of the necessaries regimen which this tends
as practice, is added, at least at two of their
meals, the irritation and excitement of the stomach
and liver, caused by highly seasoned soups, spiced
curry and sauces, and all these are not unfrequent-
ly accompanied with other variously prepared
dishes, which satisfies the appetite, and their
Indisposing Causes

A greater quantity of food is received into the stomach than can be digested, or than the system requires. The evil effects resulting from this mode of living are often aggravated by the too liberal use of viands and fermented liquors.

These causes, may in some instances be sufficient to operate the disease, but they can rarely fail to render the body more susceptible of the influence of other exciting causes.

Many of the circumstances above-mentioned may not be met with in the reach of soldiers and sailors, but they are exposed to others not less essential. They are unable to provide themselves with those expensive articles of convenience and conveniences which counteract the effects of the tropical heat. With regard to their diet, their dishes are numerous, but their drink is more spirituous, and in it they not unfrequently indulge.

The soldier is often exposed to the raw morning air loaded with the exhalations from the soil, before the sun has rared them, and rendered them comparatively innocuous, with a scanty and almost no breakfast, and upon a nearly empty stomach received his allowance of two large gills of undiluted arrears." (Ansonly)
Preceding Causes

Exercise is also frequently too much neglected in warm climates except by those whose necessity compels them to employ it.

An exhausted condition of the constitution in general and of the intestinal canal in particular also acts as a predisposing cause, as is shown by the liability of persons in this condition to be attacked with the disease, in all climates and in most epidemics, from the frequency of its occurrence in persons recovering from fevers and other disorders, and in soldiers after long marches.

To show the disposition of Europeans to be affected with dysentery in tropical climates, Mr. Banks fully mentions the case of a man who on taking cold in England was generally affected with coryza and catarrh, and when he caught cold in India, always sustained an attack of dysentery, and died after having had ten different attacks in the space of two years.

The age of the individual has a considerable influence in rendering Europeans more liable to be affected by the exciting causes of intestinal disease. The impropriety of selecting young recruits for the Indian service was ably and fully
Exciting Causes

Illustrated by Sir George Ballingall some time ago and since then has been completely confirmed by the experience of other authors.

A debilitated state of the digestive and alimentary organs, resulting from a want of whole some and nutritious diet often acts as a predisposing cause among the natives of Ireland.

The comparative infrequency of dysentery in the female as compared with the male sex, which has been noticed by so many authors in different climates, can only be explained by their being less exposed to the predisposing and exciting causes of this disease.

In temperate countries dysentery, as we have already mentioned, is more prevalent during the autumnal months than at any other season of the year, the relaxing effect of the previous summer heat rendering the body more liable to be affected by the ordinary exciting causes which we shall now proceed to mention.

Chapter II

Exciting Causes

1. Knowledge of the immediate causes of any disease, when properly understood, is often of the utmost importance in pointing out the
Exciting Causes

method of cure. Sydenham remarked that when present of such knowledge, along with a careful history of the disease, he was never at a loss for a suitable remedy to prescribe, and that he always proceeded cautiously, until he had ascertained these circumstances. Many causes have been mentioned as more immediately leading to the production of this disease, such as exposure to the extremes of temperature or of climate, particularly to heat during the summer, or the cold and moisture, by these means the circulating fluids are determined towards the internal organs, especially when they act either during or immediately after the body has been greatly heated. The operation of these causes is often much promoted, by others to which remedies on active service are not sufficiently exposed, as wearing dunce or wool, clothing, or sleeping on the ground in the open air, without sufficient protection.

Some authors consider suppressed perspiration to be the most common cause. Such as Thurnow thinks some cause nearer to but stopped for, very far short of the power, and he considers that the salivary secretion as well as the perspiration is "invariably disturbed from the very outset." These he continues are the first marks in the mental alarm which connects the remote
Exhibiting Causes

causes with the actual form of the disease. Whoever can be treated here by restoring these two functions to their natural state, I can with by this I mean condemning
the bile cure or rather prevent the disease is not
multi Magnum Apollo."

A very frequent cause of this disease is the excessive use of intoxicating liquors, these act not only by
their injurious effect produced directly on the digestive organs & functions of the liver, but also by the image
arthritis & diseases to which they give rise.

Improper food & drink may act either by rendering
the body more liable to be affected with Dysentery when
exposed to the endemic causes, which in other circum-
stances might have produced some other disease,
as Fever, or by directly producing this disease. The flesh
of Diseased Animals, Beef which has been too long
kept & put are said to have been productive of this
disease. Also the use of brackish water, I more partic-
ularly water impregnated with decomposing animal
and vegetable substances. The impurity of the water
is said to be the cause of Dysentery among the natives
of the Gold Coast of Africa. A well marked example
of its influence occurred in the old barracks at Cork,
where the disease was raging with great violence among
the troops, when the Bible & when the case of the sick
Exciting Causes

was introduced in the absence of the experimental surgeon, it is suspected that its prevalence was owing to the water with which they were supplied, being contaminated in passing through the city by an influx from the public sewers and likewise rendered unwholesome by an admixture with the tide; by prohibiting its use, and obtaining a supply of water from a spring, the disease very shortly disappeared. The presence of certain anaerobic in the water has also been considered as a cause of this disease, and the disease dysentery was so named by Linnæus from his supposing that its presence in the water of which Lelandes had drunk, was the cause of his being attacked with dysentery; derangement of the bladder sensation may also in some cases act as an exciting cause. The use of too much of unripe fruit has been considered by some authors as a frequent cause, while others do not attach much importance to it. Upon this subject Pringle says that dysentery prevails where the patients have no fruit within reach. He has been observed by him to occur about the period of grape gathering, the fruit being abundant and eaten plentifully by the soldiers. Baxter further remarks, "qui frustis nit estivis aut autumnales inmodice apprancerunt, vel nulla tentabantur dysenteriam, vel ei tentarentur levisimè ac prolabant." 3

1 Amur. Cod., Vol. 5. p. 82 et alibi. 2 Op. cit. p. 84. 3 Dr. Paterwood.
Dysentery often becomes very prevalent where persons are exposed to the exhalations from the banks of lakes, rivers, and canals, or from marshes, and the exhalations proceeding from decayed animal, vegetable, substances.

"In the last campaign," says Sir J. Pringle, "though the heats were great, yet they were the cause of little sickness, while the troops were cantonized in the marshes, where a considerable degree of sub-refraction moisture being join'd, the arsenic remittent intermittent fevers, fluxes, were only the remote effects of that heat."

Out of 13,900 cases of Dysentery in Bengal, Macnally found that only 2,400 occurred during the cold season between 1,500 in the hot and dry & 700 in the hot and drouth season.

The influence of the Moon in producing this disease has been contended for by D. Balfour & others, but there can be little doubt that the prevalence of Dysentery which they have observed at New & full Moon is not produced by any direct influence, but indirectly by the influence of that planet over the changes of the atmosphere which usually take place at those times. This, W. H. Phipps observed that from a Registro which he kept of all the diseases that occurred in India, during 5 years, having carefully noted the various periods of the Moon at which they were induced.

1st supra p. 30 & 80 on Sol-Lunar Influence. 3 of 67 p. 50.
Exciting Causes

Together with the different conditions of the weather, he arrived at the conclusion that dysentery and acute diarrhea occurred most frequently at least five full moons, provided fresh gales of wind or rain took place at those periods, but if neither these nor any other unhealthy changes of the air or weather were present, nothing particular was observed as to the recurrence of these diseases.

It is worthy of remark that the mortality from dysentery has been rapidly decreasing in London for the last 150 years. Thus during a period of 25 years from 1667 to 1692 the annual mortality amounted to above 2000, while the late of mortality for the 17th century shows the decrease which has taken place. This is illustrated by the following table copied from D. H. Thomson's inaugural dissertation on the influence of climate on health. Mortality from 1700 to 1710 there were 1070 deaths annually from dysentery.

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1710-1720</td>
<td>770</td>
</tr>
<tr>
<td>1730-1740</td>
<td>700</td>
</tr>
<tr>
<td>1750-1760</td>
<td>350</td>
</tr>
<tr>
<td>1770-1780</td>
<td>110</td>
</tr>
<tr>
<td>1790-1800</td>
<td>60</td>
</tr>
</tbody>
</table>
Exciting Causes—Contagion

This table is introduced here as it shows the diminution in the mortality occurring along with the removal of the causes, from which the dysentery has been supposed to have arisen, viz., illusive fevers, the then prevalent diarrhea, and other fevers. It is likewise probable, therefore, that dysentery, if not produced, was suppressed by the mode of living the confined and aired abodes as well as filthy habits, if anything. The former considered that the diminution in the prevalence of the disease is owing to greater cleanliness and more perfect ventilation.

Many of the causes above mentioned may produce dysentery in its endemic form, but in addition to these there would seem to be some peculiar influence in the constitution of the atmosphere, which gives rise to the epidemic manifestations of the disease, the different features which it sometimes presents in such circumstances. But what this peculiar condition of the air is, does not seem in all cases to have been satisfactorily established. It has been referred to certain noxious exhalations floating in the air, and to peculiar atmospheric conditions of the atmosphere.

Contagion—It has been much disputed whether dysentery is or is not propagated by contagion. Sydenham, Bichat, other writers, and Nathan make no allusion to it as a cause of this disease.
Eradicating Causes — Contagion.

but we have a numerous list of authors, deservedly few small
reputation, of whom the following are a few, viz. Bontius,
Deynes, Clarke, Pringle, Beliuger, Obrieston, Buller, &c. Whose
extend strongly for its contagious nature, while on the other
hand we have a less numerous list of authors of equal
celebrity who maintain an opposite opinion; of the latter
we may mention Willis, Holt, Morley, Sir G. Balney, Sir
Samuel Buller, Stoppard.

Dr. Buller in his First Lines states explicitly that the dis-
case is always contagious, the principal arguments in sup-
pport of this opinion which are to be gathered from the
writing of others are that in towns it is said to be more
prevalent in certain localities than in others, Deynes states
that he was able to trace it from one house in Berigven,
ad a whole street from thence over the rest of the town.
It has also been observed to attack persons at the same
time in succession in Camps, Towns, or large buildings.
Nurses and their attendants in hospitals have sometimes
been attacked by the disease. Some authors have concluded
that it was propagated by persons using the same water
elect or night chairs as that employed by dysenteric
patients. Stoppard & others say they have known it change
by the pipe of an E推进 syringe.

Many passages might be quoted from the authors men-
tioned alone as well as from many others who have
Relapses are not uncommon in persons who have sustained an attack of this disease, particularly if the remain exposed to the endemic or other exciting causes. Rapid turns in diet or response to cold, and various vanitions will also act in frequently reproduce the disease, particularly when it has been complicated with affection of the Liver or Spleen, or with Intermittent Fever, and when it had passed into the chronic form before the patient recovered.
Exciting Causes — Contagion

never met with Depentery communicated in any of the ways
ever mentioned, but this appears unnecessary.

the great difference of opinion which exists on this subject 
seems in no small degree to be owing to the circumstances
of not having distinguished the different forms of this disease
and after examining the accounts given by different authors, we believe that Simple Depentery as well as that com-

bined with Intermittent or Remittent Fever is not con-
tagious; but that under certain circumstances, it may
assume that character, as when the sick are crowded 
together in Hospitals, when Ventilation & Cleanliness
are not sufficiently attended to & the evacuating not
quickly removed or when it is combined with typhoid or
Malignant Fever. This was observed by Dr. Cheyne
who the case in the Depentery that occurred in Dublin's
it is also the opinion of other recent authors, was main-
tained at some length in a work entitled, "Observations on
Simple Depentery & its Combinations," published many
years ago by T. Hartle. On the whole I think it will
be found that many if not all of these authors, who so
obviously assert the Contagious nature of Depentery
have described the disease as they saw it complicated
under the circumstances above mentioned. *
Causes of Scarluctic Dysentery

Chapter XIII

Causes of Scarluctic Dysentery.

It would be foreign to the object of the present essay to

detour at any length into the causes of Dysentery: we shall

however conclude this part of our subject, by making a

few remarks on those which give rise to the scarluctic form

of Dysentery.

This complication arises from the concurrence of the

causes which give rise to Dysentery, with those which

produce, or have already produced, Scarlucty.

Persons who have suffered from Dysentery are

very liable to be affected with this complication

when exposed to the causes of Scarlucty: of these we

may mention deficient or unwholesome diet; the use

of food which does not afford sufficient nutriment;

the employment of salt provisions for some time without

a sufficient supply of vegetables or nutritious substances;

particularly the employment under such circumstances

of sated flesh. The use of a too fluid or much diluted diet

of bad stagnant water the exposure to concentrated ex-

cretions from Mareses, or Nightingales especially near the

fire or banks of rivers,-stales, Debility produced in any

way, principally from previous disease, too much

fatigue, & an intertropical climate. Fatigue, dis-

appointment, Anxiety of mind, & depression of spirits.
Causes of Scurvy

These causes lower the energy of the nervous and vital power, vitiate the circulating and secreted fluids, and ultimately deteriorate the vital properties of the soft tissues.
We need not here enlarge on the importance of medical statistics. The increasing share of attention which they are every day gaining sufficiently shows the estimation in which they are held, and more can be more important. Interstitial than those of our army particularly on foreign stations.

The plan which we propose to follow is, in the first place, to compare different classes of disease with each other, from which we shall draw the relative proportion of those of the stomach and bowels to the whole; we shall then compare the different diseases of the stomach and bowels with each other, and next calculate the proportion which diabetes bears to the whole. By following this plan in the different stations, as far as time and materials will permit, we hope to present a complete set of tables showing the prevalence and fatality of one of the most important classes of diseases to which the body is liable. Following the above, we shall give in one table a general view of the prevalence and
Statistics

Futility of Dysentery alone in different parts of the world.

All these tables will refer to white troops, and we need hardly add that they have been compiled principally from Major Full's Statistical Reports of the Army.
## Statistics - United Kingdom

### Table A I

Showing the admissions into hospital and deaths in different classes of diseases among 44,611 Dragoons Guards and Dragoons serving in the United Kingdom from 1st January 1830 to 31st March 1834.

<table>
<thead>
<tr>
<th>Classes of Diseases</th>
<th>Admitted</th>
<th>Died</th>
<th>Death Rate per 1000 Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhus</td>
<td>3,324</td>
<td>60</td>
<td>1.34</td>
</tr>
<tr>
<td>Cholera</td>
<td>114</td>
<td>6</td>
<td>0.13</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>6,624</td>
<td>345</td>
<td>4.43</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>334</td>
<td>19</td>
<td>0.43</td>
</tr>
<tr>
<td>Dys- of the Harnach and Blood</td>
<td>1,193</td>
<td>32</td>
<td>0.42</td>
</tr>
<tr>
<td>Epidemic Cholera</td>
<td>141</td>
<td>14</td>
<td>1.21</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>293</td>
<td>32</td>
<td>0.42</td>
</tr>
<tr>
<td>Dropsies</td>
<td>55</td>
<td>14</td>
<td>0.31</td>
</tr>
<tr>
<td>Rheumatic Affections</td>
<td>2,244</td>
<td>6</td>
<td>0.13</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>8,042</td>
<td>2</td>
<td>0.04</td>
</tr>
<tr>
<td>Abscesses and Ulcers</td>
<td>5,950</td>
<td>4</td>
<td>0.16</td>
</tr>
<tr>
<td>Wounds and Injuries</td>
<td>5,619</td>
<td>12</td>
<td>0.29</td>
</tr>
<tr>
<td>Lacerated</td>
<td>389</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Ears</td>
<td>364</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Skin</td>
<td>1,311</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other Diseases</td>
<td>1,942</td>
<td>38</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Total                          | 44,647   | 627  |                          |

From this table we learn that the proportion of the diseases of the bowels to the total number of cases admitted is 101.12 per 1000 and of deaths 51.03 per 1000.
### Table AII

Showing the proportion which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease of Stomach &amp; Bowels</th>
<th>Admitted</th>
<th>Died</th>
<th>Deaths per 1,000 Adm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhus</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastritis</td>
<td>9</td>
<td>1</td>
<td>54.63</td>
</tr>
<tr>
<td>Enteritis</td>
<td>7</td>
<td>4</td>
<td>184.19</td>
</tr>
<tr>
<td>Malaria</td>
<td>10</td>
<td>1</td>
<td>100.00</td>
</tr>
<tr>
<td>Dysentery Acuta</td>
<td>15</td>
<td>4</td>
<td>81.63</td>
</tr>
<tr>
<td>Dysentery Chronica</td>
<td>14</td>
<td>3</td>
<td>146.44</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>2852</td>
<td>10</td>
<td>3.81</td>
</tr>
<tr>
<td>Asiatic Fever</td>
<td>157</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Falciform</td>
<td>529</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>248</td>
<td>3</td>
<td>12.10</td>
</tr>
<tr>
<td>Cholera Morbus</td>
<td>266</td>
<td>3</td>
<td>11.26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,4793</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

### Table AIII

Showing the proportion of cases of death and chronic dysentery admitted and of deaths from these diseases per 1,000 of all the diseases of the stomach and bowels.

<table>
<thead>
<tr>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4793</td>
<td>32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute Dysentery per 1,000</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.69</td>
<td>15.74</td>
</tr>
<tr>
<td>125.00</td>
<td>218.75</td>
</tr>
<tr>
<td>6.85</td>
<td>43.75</td>
</tr>
</tbody>
</table>
Statistics—Gibraltar

Table BI

Showing the admissions into Hospital and deaths in different classes of diseases among 60,267 Troops serving in Gibraltar from 1818 to 1836 inclusive.

<table>
<thead>
<tr>
<th>Class of Disease</th>
<th>Admitted</th>
<th>Died</th>
<th>Deaths per 1000 Troops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enteritis</td>
<td>8,165</td>
<td>140</td>
<td>2.32</td>
</tr>
<tr>
<td>Epidemic Enteritis</td>
<td>4,572</td>
<td>423</td>
<td>9.22</td>
</tr>
<tr>
<td>Eruptive Enteritis</td>
<td>54</td>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>3,257</td>
<td>318</td>
<td>2.28</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>459</td>
<td>22</td>
<td>0.37</td>
</tr>
<tr>
<td>Disease of the Brain</td>
<td>1,420</td>
<td>128</td>
<td>2.12</td>
</tr>
<tr>
<td>Osteo-arthritis</td>
<td>1,259</td>
<td>8</td>
<td>0.13</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>9,450</td>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>Abscess &amp; Ulcer</td>
<td>6,131</td>
<td>9</td>
<td>0.15</td>
</tr>
<tr>
<td>Wounds &amp; Injuries</td>
<td>5,312</td>
<td>24</td>
<td>0.41</td>
</tr>
<tr>
<td>Disease of the Eyes</td>
<td>5,862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disease of the Skin</td>
<td>903</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infebrile</td>
<td>988</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other Diseases</td>
<td>3141</td>
<td>38</td>
<td>0.63</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>33,224</td>
<td>1291</td>
<td></td>
</tr>
</tbody>
</table>

The above Table shows the proportion of the diseases of the stomach,bowel and intestine to the total number of cases admitted to be 192.38 per 1000, and of deaths 99.15 per 1000.
### Table BII

<table>
<thead>
<tr>
<th>Disease</th>
<th>Cases</th>
<th>Deaths</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dysentery</td>
<td>13</td>
<td>5</td>
<td>386.62</td>
</tr>
<tr>
<td>Gastro-Enteritis</td>
<td>20</td>
<td>5</td>
<td>250.00</td>
</tr>
<tr>
<td>Enteritis</td>
<td>45</td>
<td>12</td>
<td>266.64</td>
</tr>
<tr>
<td>Hematemesis</td>
<td>4</td>
<td>1</td>
<td>142.86</td>
</tr>
<tr>
<td>Dysenteric Acuta</td>
<td>274</td>
<td>49</td>
<td>18.89</td>
</tr>
<tr>
<td>Dysenteric Chronicus</td>
<td>59</td>
<td>15</td>
<td>254.24</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>304</td>
<td>1</td>
<td>3.29</td>
</tr>
<tr>
<td>Colica</td>
<td>998</td>
<td>2</td>
<td>2.01</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>5,600</td>
<td>31</td>
<td>5.45</td>
</tr>
<tr>
<td>Cholera Marus</td>
<td>334</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11,202</td>
<td>128</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### Table BIII

Showing the proportion of cases of acute and chronic dysentery admitted and of deaths from these diseases per 1000 of all the diseases of the stomach and bowel.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of cases of Diseases of Stomach and Bowel</td>
<td>11,202</td>
<td>128</td>
</tr>
<tr>
<td>Acute Dysentery per 1000</td>
<td>231.57</td>
<td>382.81</td>
</tr>
<tr>
<td>Chronic Dysentery per 1000</td>
<td>5.76</td>
<td>114.18</td>
</tr>
<tr>
<td>Total</td>
<td>236.83</td>
<td>149.99</td>
</tr>
</tbody>
</table>
### Statistics — Malta

**Table C I**

Showing the admissions into Hospital and Deaths in different classes of diseases among 40,826 troops serving at Malta from 1817 to 1836 inclusive.

<table>
<thead>
<tr>
<th>Causes of Disease</th>
<th>Admitted</th>
<th>Died</th>
<th>Death rate per 1000 troops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lancers</td>
<td>4,078</td>
<td>118</td>
<td>2.89</td>
</tr>
<tr>
<td>Eruptive Lancers</td>
<td>134</td>
<td>3</td>
<td>0.07</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>4,383</td>
<td>245</td>
<td>6.00</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>854</td>
<td>47</td>
<td>1.35</td>
</tr>
<tr>
<td>Dey of the Stomach &amp; Bowels</td>
<td>6,314</td>
<td>141</td>
<td>3.60</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>236</td>
<td>30</td>
<td>0.43</td>
</tr>
<tr>
<td>Dropsies</td>
<td>42</td>
<td>16</td>
<td>0.39</td>
</tr>
<tr>
<td>Rheumatic affections</td>
<td>1,383</td>
<td>9</td>
<td>0.22</td>
</tr>
<tr>
<td>Venereal affections</td>
<td>436</td>
<td>2</td>
<td>0.05</td>
</tr>
<tr>
<td>Worms and Lice</td>
<td>613</td>
<td>4</td>
<td>0.07</td>
</tr>
<tr>
<td>Wounds &amp; Injuries</td>
<td>1,625</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burns</td>
<td>1,625</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>1,182</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Skin</td>
<td>858</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other Diseases</td>
<td>1,679</td>
<td>18</td>
<td>0.49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>46,639</td>
<td>663</td>
<td></td>
</tr>
</tbody>
</table>

From this table one learns that the proportion of the diseases of the stomach and bowels to the total number of cases admitted is 135.44 per 1000 and of deaths 221.05 per 1000.
### Table C II

Showing the proportion which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease of Stomach &amp; Bowels</th>
<th>Adm</th>
<th>Died</th>
<th>Deaths per 1000 Adm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastritis</td>
<td>21</td>
<td>4</td>
<td>190.48</td>
</tr>
<tr>
<td>Enteritis</td>
<td>10</td>
<td>1</td>
<td>100.00</td>
</tr>
<tr>
<td>Dysentery</td>
<td>68</td>
<td>7</td>
<td>102.94</td>
</tr>
<tr>
<td>Hemorrhage</td>
<td>9</td>
<td>2</td>
<td>222.22</td>
</tr>
<tr>
<td>Dysentery acute</td>
<td>1303</td>
<td>48</td>
<td>57.86</td>
</tr>
<tr>
<td>Dysentery chronic</td>
<td>98</td>
<td>16</td>
<td>163.24</td>
</tr>
<tr>
<td>Dysentery chronic acute</td>
<td>164</td>
<td>1</td>
<td>6.10</td>
</tr>
<tr>
<td>Polio</td>
<td>508</td>
<td>2</td>
<td>3.94</td>
</tr>
<tr>
<td>Obstipation</td>
<td>659</td>
<td>1</td>
<td>1.55</td>
</tr>
<tr>
<td>Cholera marles</td>
<td>434</td>
<td>5</td>
<td>11.01</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>3023</td>
<td>30</td>
<td>9.92</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6314</td>
<td>144</td>
<td></td>
</tr>
</tbody>
</table>

### Table C III

Showing the proportion of cases of acute and chronic dysentery admitted and of deaths from these diseases per 1000 of all the admissions of the stomach & bowels.

<table>
<thead>
<tr>
<th>Total number of cases of Di &amp; Dysentery per 1000</th>
<th>Adm</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6314</td>
<td>144</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acid Dysentery per 1000</th>
<th>206.27</th>
<th>530.61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Dysentery per 1000</td>
<td>65.31</td>
<td>108.84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>221.48</td>
<td>639.45</td>
</tr>
</tbody>
</table>
Statistics—Sconian Islands

Table DI

Showing the admissions into the hospital and deaths in different classes of diseases among 90,293 troops serving in the Sconian islands from 1817 to 1836 inclusive.

| Class of Diseases | Admitted | Died | Deaths per 1000
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fevers</td>
<td>32,160</td>
<td>384</td>
<td>12.62</td>
</tr>
<tr>
<td>Dysentery</td>
<td>58</td>
<td>2</td>
<td>0.03</td>
</tr>
<tr>
<td>Diseases of the Stomach</td>
<td>6313</td>
<td>320</td>
<td>4.69</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>1,166</td>
<td>56</td>
<td>0.80</td>
</tr>
<tr>
<td>Diseases of the Stomach and Ulcers</td>
<td>10,969</td>
<td>234</td>
<td>3.34</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>693</td>
<td>69</td>
<td>0.98</td>
</tr>
<tr>
<td>Dropsy</td>
<td>183</td>
<td>43</td>
<td>0.61</td>
</tr>
<tr>
<td>Rheumatic Affections</td>
<td>2,428</td>
<td>7</td>
<td>0.10</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>4,660</td>
<td>83</td>
<td>0.40</td>
</tr>
<tr>
<td>Acute and Ulcers</td>
<td>8,199</td>
<td>8</td>
<td>0.11</td>
</tr>
<tr>
<td>Wounds and Injuries</td>
<td>8,122</td>
<td>28</td>
<td>0.40</td>
</tr>
<tr>
<td>Gunshot Wounds and Injuries</td>
<td>2,614</td>
<td>1</td>
<td>0.01</td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>2,903</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Skin</td>
<td>12,41</td>
<td>1</td>
<td>0.01</td>
</tr>
<tr>
<td>All Other Diseases</td>
<td>2,404</td>
<td>42</td>
<td>0.40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>84,438</strong></td>
<td><strong>1,711</strong></td>
<td></td>
</tr>
</tbody>
</table>

The above table shows the proportion of the diseases of the stomach and bowels to the total number of cases admitted there 129.91 per 1000 and of deaths 133.51 per 1000.
**Table DJII**

Showing the proportion which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease of Stomach and Bowels</th>
<th>Admitted</th>
<th>Died</th>
<th>Death per 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhus</td>
<td>20</td>
<td>5</td>
<td>250.00</td>
</tr>
<tr>
<td>Gastritis</td>
<td>34</td>
<td>1</td>
<td>29.41</td>
</tr>
<tr>
<td>Enteritis</td>
<td>201</td>
<td>22</td>
<td>109.45</td>
</tr>
<tr>
<td>Hemorrhagic</td>
<td>24</td>
<td>2</td>
<td>54.04</td>
</tr>
<tr>
<td>Dysenteria Acuta</td>
<td>3461</td>
<td>116</td>
<td>33.52</td>
</tr>
<tr>
<td>Dysenteria Chronica</td>
<td>304</td>
<td>58</td>
<td>188.93</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>189</td>
<td>2</td>
<td>10.58</td>
</tr>
<tr>
<td>Colica</td>
<td>1258</td>
<td>3</td>
<td>2.38</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>3896</td>
<td>155</td>
<td>3.85</td>
</tr>
<tr>
<td>Obstipation</td>
<td>290</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholera Marburgise</td>
<td>1286</td>
<td>13</td>
<td>10.11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10969</td>
<td>237</td>
<td></td>
</tr>
</tbody>
</table>

**Table DJIII**

Showing the proportion of cases of acute and chronic dysentery admitted, and of deaths from these diseases per 1000 of all the diseases of the Stomach & Bowels.

- Total number of cases of acute and chronic dysentery: 10969
- Acute dysentery: 33.83
- Chronic dysentery: 489.45
- Total dysentery: 523.28

<table>
<thead>
<tr>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>10969</td>
<td>237</td>
</tr>
</tbody>
</table>
Statistics - Bermudas

Table E1

Showing the admissions into Hospital and Deaths in different classes of Disease among 17,721 Troops serving in the Bermudas from 1817 to 1836 inclusive.

<table>
<thead>
<tr>
<th>Class of Disease</th>
<th>Admitted</th>
<th>Died</th>
<th>Death per 1000 Troops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>1591</td>
<td>129</td>
<td>0.81</td>
</tr>
<tr>
<td>Malignant Fever</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>1173</td>
<td>102</td>
<td>0.90</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>158</td>
<td>6</td>
<td>0.01</td>
</tr>
<tr>
<td>Disease of Stomach &amp; Bowels</td>
<td>4,865</td>
<td>62</td>
<td>0.29</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>199</td>
<td>24</td>
<td>2.05</td>
</tr>
<tr>
<td>Dropsy</td>
<td>84</td>
<td>4</td>
<td>0.60</td>
</tr>
<tr>
<td>Rheumatic Affections</td>
<td>330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Affections</td>
<td>461</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abscesses and Ulcers</td>
<td>1,239</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wounds and Injuries</td>
<td>1,583</td>
<td>4</td>
<td>0.34</td>
</tr>
<tr>
<td>Lacerated</td>
<td>685</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>1165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disease of the Skin</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Other Diseases</td>
<td>344</td>
<td>4</td>
<td>0.34</td>
</tr>
<tr>
<td>Total</td>
<td>15,956</td>
<td>338</td>
<td></td>
</tr>
</tbody>
</table>

The above Table shows the proportion of the diseases of the Stomach and Bowels to the total number of cases admitted to be 315.91 per 1000 and of deaths 135.43 per 1000.
Table E II

<table>
<thead>
<tr>
<th>Disease of the Stomach &amp; Bowels</th>
<th>Admitted</th>
<th>Died</th>
<th>Death per 100 Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhoid</td>
<td>3</td>
<td>2</td>
<td>666.66</td>
</tr>
<tr>
<td>Gastritis</td>
<td>213</td>
<td>4</td>
<td>3288</td>
</tr>
<tr>
<td>Enteritis</td>
<td>33</td>
<td>3</td>
<td>9091</td>
</tr>
<tr>
<td>Typhusenteritis</td>
<td>10</td>
<td>2</td>
<td>20000</td>
</tr>
<tr>
<td>Dysenteric Acute</td>
<td>1712</td>
<td>30</td>
<td>17832</td>
</tr>
<tr>
<td>Dysenteric Chronic</td>
<td>29</td>
<td>6</td>
<td>155385</td>
</tr>
<tr>
<td>Syphilis</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulica</td>
<td>138</td>
<td>1</td>
<td>725</td>
</tr>
<tr>
<td>Cirrhosis</td>
<td>2551</td>
<td>3</td>
<td>390</td>
</tr>
<tr>
<td>Distipacia</td>
<td>206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Causes Neuritis</td>
<td>336</td>
<td>2</td>
<td>644</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4363</strong></td>
<td><strong>62</strong></td>
<td>****</td>
</tr>
</tbody>
</table>

Table E III

<table>
<thead>
<tr>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>4365</td>
<td>62</td>
</tr>
</tbody>
</table>

Showing the proportion of cases of acute and chronic dysenteric admitted and of death from these diseases, per 100 of all the diseases of the Stomach and Bowels.

<table>
<thead>
<tr>
<th>Total number of cases of dysenteric and bowel</th>
<th>4365</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dysentery per 100</td>
<td>35190</td>
</tr>
<tr>
<td>Chronic Dysentery per 100</td>
<td>35992</td>
</tr>
<tr>
<td>Total</td>
<td>35992</td>
</tr>
</tbody>
</table>
Table 1

Showing the admissions into hospitals and deaths in different classes of diseases among 64,280 troops serving in Canada from 1874 to 1876 inclusive.

<table>
<thead>
<tr>
<th>Class of Disease</th>
<th>Admitted</th>
<th>Died</th>
<th>Death for 1000 Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>13044</td>
<td>147</td>
<td>2.29</td>
</tr>
<tr>
<td>Enteric Fever</td>
<td>102</td>
<td>17</td>
<td>0.16</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>9061</td>
<td>411</td>
<td>6.39</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>488</td>
<td>12</td>
<td>0.19</td>
</tr>
<tr>
<td>Diseases of the Heart and Lungs</td>
<td>9480</td>
<td>84</td>
<td>1.31</td>
</tr>
<tr>
<td>Enteric Cholera</td>
<td>356</td>
<td>127</td>
<td>1.98</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>822</td>
<td>72</td>
<td>1.12</td>
</tr>
<tr>
<td>Dropyric</td>
<td>128</td>
<td>23</td>
<td>0.36</td>
</tr>
<tr>
<td>Rheumatic affections</td>
<td>2427</td>
<td>3</td>
<td>0.05</td>
</tr>
<tr>
<td>Venereal affections</td>
<td>6063</td>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>Abscess and Ulcers</td>
<td>6624</td>
<td>10</td>
<td>0.16</td>
</tr>
<tr>
<td>Wound and Injuries</td>
<td>9904</td>
<td>42</td>
<td>0.65</td>
</tr>
<tr>
<td>-haired</td>
<td>1981</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>271</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Diseases of the Nose</td>
<td>1332</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>All other Diseases</td>
<td>2374</td>
<td>46</td>
<td>0.62</td>
</tr>
</tbody>
</table>

Total: 66957 982

From this table we learn that the proportion of the diseases of the stomach and smalls to the total number of cases admitted is 141.58 per 10,000, and of deaths 35.32 per 1000.
### Table FII

Showing the proportion which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease of the Stomach &amp; Bowels</th>
<th>Admitted</th>
<th>Died</th>
<th>Rate per 1000 admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keratitis</td>
<td>22</td>
<td>4</td>
<td>218.18</td>
</tr>
<tr>
<td>Gastritis</td>
<td>23</td>
<td>5</td>
<td>214.39</td>
</tr>
<tr>
<td>Enteritis</td>
<td>110</td>
<td>16</td>
<td>145.45</td>
</tr>
<tr>
<td>Nematodermatitis</td>
<td>13</td>
<td>1</td>
<td>46.92</td>
</tr>
<tr>
<td>Dysentery Acute &amp; Chronic</td>
<td>735</td>
<td>86</td>
<td>48.98</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>240</td>
<td>1</td>
<td>4.14</td>
</tr>
<tr>
<td>Colica</td>
<td>911</td>
<td>8</td>
<td>3.29</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>6434</td>
<td>8</td>
<td>1.24</td>
</tr>
<tr>
<td>Cholera</td>
<td>545</td>
<td>1</td>
<td>1.83</td>
</tr>
<tr>
<td>Cholera Mortis</td>
<td>447</td>
<td>6</td>
<td>13.42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9480</td>
<td>84</td>
<td></td>
</tr>
</tbody>
</table>

### Table FIII

Showing the proportion of cases of acute and chronic dysentery admitted, and of deaths from these diseases, per 1000 of all the diseases of the stomach and bowels.

<table>
<thead>
<tr>
<th>Total number of cases of Dis. of Stomach &amp; Bowels</th>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute and Chronic Dysentery per 1000</td>
<td>9480</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>44.53</td>
<td>42.54</td>
</tr>
</tbody>
</table>
Table 61

Showing the admissions into Hospital and Deaths in different classes of diseases among 4,644,252 troops serving in Nova Scotia and New Brunswick from 1817 to 1836 inclusive.

<table>
<thead>
<tr>
<th>Class of Disease</th>
<th>Admitted</th>
<th>Died</th>
<th>Per 1000 Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhus</td>
<td>305</td>
<td>41</td>
<td>1.33</td>
</tr>
<tr>
<td>Eruptive Typhus</td>
<td>65</td>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>553</td>
<td>314</td>
<td>6.46</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>334</td>
<td>10</td>
<td>0.22</td>
</tr>
<tr>
<td>Insanity of the Bowels</td>
<td>1446</td>
<td>64</td>
<td>1.44</td>
</tr>
<tr>
<td>Epidemic Cholera</td>
<td>210</td>
<td>59</td>
<td>1.24</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>508</td>
<td>56</td>
<td>1.21</td>
</tr>
<tr>
<td>Dropsy</td>
<td>48</td>
<td>23</td>
<td>0.50</td>
</tr>
<tr>
<td>Rheumatic Affections</td>
<td>1310</td>
<td>3</td>
<td>0.06</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>3675</td>
<td>2</td>
<td>0.04</td>
</tr>
<tr>
<td>Abscesses &amp; Ulcers</td>
<td>1626</td>
<td>3</td>
<td>0.06</td>
</tr>
<tr>
<td>Wounds &amp; Injuries</td>
<td>6545</td>
<td>20</td>
<td>0.43</td>
</tr>
<tr>
<td>Leprosy</td>
<td>1345</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>2241</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Skin</td>
<td>1030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other Diseases</td>
<td>1346</td>
<td>20</td>
<td>0.43</td>
</tr>
<tr>
<td>Total</td>
<td>36174</td>
<td>649</td>
<td></td>
</tr>
</tbody>
</table>

From the above table we learn that the proportion of the diseases of the Bowels to the total number of cases admitted is 114.61 per 1000; of Deaths 103.24 per 1000.
### Table G II

Showing the proportion which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Cases</th>
<th>Deaths</th>
<th>Deaths per 1000 Adm</th>
<th>Deaths per 1000 Adm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrotonitis</td>
<td>6</td>
<td>2</td>
<td>332.33</td>
<td></td>
</tr>
<tr>
<td>Gastritis</td>
<td>68</td>
<td>6</td>
<td>36.46</td>
<td></td>
</tr>
<tr>
<td>Enteritis</td>
<td>43</td>
<td>10</td>
<td>23.25</td>
<td></td>
</tr>
<tr>
<td>Hematemesis</td>
<td>14</td>
<td>2</td>
<td>114.65</td>
<td></td>
</tr>
<tr>
<td>Dysenterya</td>
<td>244</td>
<td>18</td>
<td>73.44</td>
<td></td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>156</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polio</td>
<td>169</td>
<td>4</td>
<td>8.52</td>
<td></td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>2189</td>
<td>17</td>
<td>7.76</td>
<td></td>
</tr>
<tr>
<td>Asthenia</td>
<td>524</td>
<td>1</td>
<td>1.91</td>
<td></td>
</tr>
<tr>
<td>Yestera Marlow</td>
<td>424</td>
<td>4</td>
<td>9.34</td>
<td></td>
</tr>
<tr>
<td>Schirrhus Pylori</td>
<td>3</td>
<td>3</td>
<td>1000.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2146</td>
<td>64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table G III

Showing the proportion of cases of dysentery admitted and of deaths from that disease per 1000 of all the diseases of the stomach and bowels.

<table>
<thead>
<tr>
<th>Cases</th>
<th>Deaths</th>
<th>Dysentery per 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2146</td>
<td>64</td>
<td>58.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>268.66</td>
</tr>
</tbody>
</table>
### Table H1

Showing the admissions into Hospitals and Deaths in different Classes of diseases among 127,925 European Troops serving in the Madras Army from 1824 to 1838 inclusive.

Taken from the Report of a Committee of the Statistical Society of London.

<table>
<thead>
<tr>
<th>Class</th>
<th>Admitted</th>
<th>Died</th>
<th>Death per 1000 Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fevers</td>
<td>44,658</td>
<td>714</td>
<td>5.57</td>
</tr>
<tr>
<td>Encephalitic FEVERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>14,971</td>
<td>299</td>
<td>2.35</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>14,875</td>
<td>720</td>
<td>5.62</td>
</tr>
<tr>
<td>Diseases of the Stomach</td>
<td>10,506</td>
<td>2,252</td>
<td>17.59</td>
</tr>
<tr>
<td>Epidemic Cholera</td>
<td>3,510</td>
<td>974</td>
<td>7.60</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>1768</td>
<td>205</td>
<td>11.60</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>707</td>
<td>138</td>
<td>1.95</td>
</tr>
<tr>
<td>Rheumatic Affections</td>
<td>13,045</td>
<td>122</td>
<td>0.95</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>24,574</td>
<td>74</td>
<td>0.57</td>
</tr>
<tr>
<td>Abscesses and Ulcers</td>
<td>6,561</td>
<td>28</td>
<td>0.22</td>
</tr>
<tr>
<td>Wounds and Injuries</td>
<td>13,088</td>
<td>49</td>
<td>0.59</td>
</tr>
<tr>
<td>Poisoned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>3,249</td>
<td>8</td>
<td>0.06</td>
</tr>
<tr>
<td>Diseases of the Skin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other Diseases</td>
<td>18,874</td>
<td>614</td>
<td>4.95</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>235,386</td>
<td>6,221</td>
<td>4.863</td>
</tr>
</tbody>
</table>

The above Table shows the proportion of the diseases of the European Army to the total number of cases admitted to the 172,062 and of deaths 861.100 for 1838.
### Table H II

Showing the proportion in which the diseases of the Stomach and Bowels lead to each other.

<table>
<thead>
<tr>
<th>Disease of Stomach &amp; Bowels</th>
<th>Color</th>
<th>Died</th>
<th>Ratio per 1000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacli</td>
<td>3,415</td>
<td>10</td>
<td>2.93</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>10,058</td>
<td>199</td>
<td>19.80</td>
</tr>
<tr>
<td>Dysentery</td>
<td>24,116</td>
<td>928</td>
<td>79.43</td>
</tr>
<tr>
<td>Abdominal Inflammation</td>
<td>2,921</td>
<td>120</td>
<td>4.10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>40,506</td>
<td>2,252</td>
<td></td>
</tr>
</tbody>
</table>

### Table H III

Showing the proportion of cases of dysentery admitted and of deaths from that disease per 1000 of all the diseases of the Stomach and Bowels.

<table>
<thead>
<tr>
<th>Disease of Stomach &amp; Bowels</th>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysentery</td>
<td>10,506</td>
<td>2,252</td>
</tr>
<tr>
<td>Total number of cases of Di &amp; Dysentery vs Bowels</td>
<td>595.36</td>
<td>409.85</td>
</tr>
</tbody>
</table>
### Table II

Shewing the admissions into hospital and deaths in different classes of disease among 42,978 White Emigrants in the Island of Eylon from 1814 to 1836 inclusive.

<table>
<thead>
<tr>
<th>Class of Disease</th>
<th>Admitted</th>
<th>Died</th>
<th>Deaths per 1000 Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallpox</td>
<td>20,846</td>
<td>10,56</td>
<td>51.57</td>
</tr>
<tr>
<td>Exanthematous Smallpox</td>
<td>52</td>
<td>4</td>
<td>0.9</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>5,662</td>
<td>1,753</td>
<td>30.7</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>2,382</td>
<td>1,63</td>
<td>4.96</td>
</tr>
<tr>
<td>Diet of the Normandy Locomotive</td>
<td>15,318</td>
<td>1,039</td>
<td>6.82</td>
</tr>
<tr>
<td>Epidemic Cholera</td>
<td>788</td>
<td>257</td>
<td>3.2</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>418</td>
<td>16</td>
<td>3.8</td>
</tr>
<tr>
<td>Trenchfevers</td>
<td>1,086</td>
<td>89</td>
<td>8.2</td>
</tr>
<tr>
<td>Hemorrhagic Affections</td>
<td>2,008</td>
<td>4</td>
<td>0.2</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>3,093</td>
<td>2</td>
<td>0.65</td>
</tr>
<tr>
<td>Abscess and Ulcer</td>
<td>10,622</td>
<td>18</td>
<td>0.42</td>
</tr>
<tr>
<td>Wounds and Injuries</td>
<td>5,736</td>
<td>38</td>
<td>0.88</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1,757</td>
<td>39</td>
<td>0.90</td>
</tr>
<tr>
<td>Total</td>
<td>71,100</td>
<td>3,000</td>
<td></td>
</tr>
</tbody>
</table>

The above table shews the proportion of the

of the stomach and Bowels to the total number of
cases admitted to lie 27.83 per 1000 and of deaths 3.66.33 per 1000.
### Table I:II

Showing the proportion which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease of the Stomach &amp; Bowels</th>
<th>Admitted</th>
<th>Died</th>
<th>Deaths per 1000 Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritonitis</td>
<td>14</td>
<td>3</td>
<td>2.14: 2.9</td>
</tr>
<tr>
<td>Gastritis</td>
<td>37</td>
<td>7</td>
<td>189: 19</td>
</tr>
<tr>
<td>Enteritis</td>
<td>94</td>
<td>10</td>
<td>106: 3.8</td>
</tr>
<tr>
<td>Hemorrhoids</td>
<td>14</td>
<td>2</td>
<td>500: 0.2</td>
</tr>
<tr>
<td>Dysentery Acuta</td>
<td>8370</td>
<td>848</td>
<td>103: 70</td>
</tr>
<tr>
<td>Dysentery Chronic</td>
<td>699</td>
<td>125</td>
<td>178: 83</td>
</tr>
<tr>
<td>Appendicitis</td>
<td>293</td>
<td>1</td>
<td>3: 11</td>
</tr>
<tr>
<td>Gallic</td>
<td>2205</td>
<td>4</td>
<td>1.94</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>2649</td>
<td>6</td>
<td>2: 27</td>
</tr>
<tr>
<td>Obstipation</td>
<td>504</td>
<td>1</td>
<td>1.98</td>
</tr>
<tr>
<td>Cholera Morbus</td>
<td>189</td>
<td>12</td>
<td>29: 34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15368</strong></td>
<td><strong>1039</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Table I:III

Showing the proportion of cases of acute and chronic dysentery admitted and of deaths from these diseases per 1000 of all the diseases of the stomach and bowels.

<table>
<thead>
<tr>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>15368</td>
<td>1039</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute Dysentery per 1000</th>
<th>54:14</th>
<th>835:42</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Dysentery per 1000</td>
<td>45:18</td>
<td>180:81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>590:12</td>
<td>955:73</td>
</tr>
<tr>
<td>Class of Disease</td>
<td>Admitted</td>
<td>Died</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------</td>
<td>------</td>
</tr>
<tr>
<td>Fever</td>
<td>62163</td>
<td>3195</td>
</tr>
<tr>
<td>Eruptive Fever</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>9975</td>
<td>906</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>1946</td>
<td>161</td>
</tr>
<tr>
<td>Blood of the Wounds &amp; Blood</td>
<td>36474</td>
<td>1495</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>2474</td>
<td>312</td>
</tr>
<tr>
<td>Polypi</td>
<td>659</td>
<td>180</td>
</tr>
<tr>
<td>Rheumatic Affections</td>
<td>4702</td>
<td>17</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>30403</td>
<td>6</td>
</tr>
<tr>
<td>Abscesses &amp; Ulcers</td>
<td>17108</td>
<td>18</td>
</tr>
<tr>
<td>Wounds &amp; Injuries</td>
<td>11148</td>
<td>60</td>
</tr>
<tr>
<td>Burnished</td>
<td>4724</td>
<td>2</td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>5886</td>
<td>4</td>
</tr>
<tr>
<td>Diseases of the Skin</td>
<td>559</td>
<td>1</td>
</tr>
<tr>
<td>All other Diseases</td>
<td>2581</td>
<td>165</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>164983</td>
<td>6803</td>
</tr>
</tbody>
</table>

The above table shows the proportion of the diseases of the stomach and bowels to the total number of cases admitted to be 221.44 per 1000 and of deaths 262.38 per 1000.
Table II

Showing the proportion which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Died</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritonitis</td>
<td>2.5</td>
<td>280.00</td>
</tr>
<tr>
<td>Gastrentis</td>
<td>161</td>
<td>161.49</td>
</tr>
<tr>
<td>Enteritis</td>
<td>254</td>
<td>14.96</td>
</tr>
<tr>
<td>Hematemesis</td>
<td>34</td>
<td>58.82</td>
</tr>
<tr>
<td>Dysentery Acuta</td>
<td>14446</td>
<td>608.11</td>
</tr>
<tr>
<td>Dysentery Chronica</td>
<td>3465</td>
<td>559.20</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>1422</td>
<td>23.09</td>
</tr>
<tr>
<td>Polio</td>
<td>3286</td>
<td>4.56</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>14825</td>
<td>24.09</td>
</tr>
<tr>
<td>Cholera Morbus</td>
<td>1173</td>
<td>20.46</td>
</tr>
<tr>
<td>Obstipatio</td>
<td>527</td>
<td>4.13</td>
</tr>
<tr>
<td>Stomachus Storci</td>
<td>1</td>
<td>1000.00</td>
</tr>
<tr>
<td>Total</td>
<td>36474</td>
<td>4795</td>
</tr>
</tbody>
</table>

Table III

Showing the proportion of cases of acute and chronic dysentery admitted, and of deaths from these diseases per 1000 of all the diseases of the stomach and bowels.

<table>
<thead>
<tr>
<th>Diet</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dysentry per 1000</td>
<td>36474</td>
</tr>
<tr>
<td>Chronic Dysentry per 1000</td>
<td>3857</td>
</tr>
<tr>
<td>Total</td>
<td>10828</td>
</tr>
<tr>
<td></td>
<td>48917</td>
</tr>
</tbody>
</table>
### Statistics - Jamaica

#### Table I

<table>
<thead>
<tr>
<th>Disease Category</th>
<th>Fitted Cases</th>
<th>Recorded Deaths</th>
<th>Deaths per 1000 Fit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livers</td>
<td>46922</td>
<td>5253</td>
<td>101.87</td>
</tr>
<tr>
<td>Excessive Livers</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>4357</td>
<td>388</td>
<td>1.52</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>539</td>
<td>51</td>
<td>0.99</td>
</tr>
<tr>
<td>Deaths of the Bowels</td>
<td>12282</td>
<td>260</td>
<td>5.04</td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>720</td>
<td>137</td>
<td>2.66</td>
</tr>
<tr>
<td>Drapery</td>
<td>268</td>
<td>61</td>
<td>1.18</td>
</tr>
<tr>
<td>Rheumatic Affections</td>
<td>1079</td>
<td>5</td>
<td>0.10</td>
</tr>
<tr>
<td>Venereal Affections</td>
<td>1021</td>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>Worses and Abscesses</td>
<td>9667</td>
<td>18</td>
<td>0.36</td>
</tr>
<tr>
<td>Wounds and Injuries</td>
<td>6164</td>
<td>21</td>
<td>0.41</td>
</tr>
<tr>
<td>Touched</td>
<td>3285</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>4641</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the Skin</td>
<td>337</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other Diseases</td>
<td>1760</td>
<td>59</td>
<td>1.14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>93455</strong></td>
<td><strong>6254</strong></td>
<td></td>
</tr>
</tbody>
</table>

The above table shows the proportion of the diseases of the Bowels and Bowels to the total number of cases admitted to be 131.42 per 1000 and of deaths 41.54 per 1000.
### Table K.II

Showing the proportion which the diseases of the Stomach and Bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease of the Stomach and Bowels</th>
<th>Admitted</th>
<th>Died per 1000 live Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritonitis</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Gastritis</td>
<td>42</td>
<td>4</td>
</tr>
<tr>
<td>Enteritis</td>
<td>52</td>
<td>10</td>
</tr>
<tr>
<td>Hematemesis</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Dysentery Acuta</td>
<td>1147.3</td>
<td>114</td>
</tr>
<tr>
<td>Dysentery Chronica</td>
<td>436</td>
<td>10</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>579</td>
<td>5</td>
</tr>
<tr>
<td>Photica</td>
<td>1167</td>
<td>1</td>
</tr>
<tr>
<td>Obstipatic</td>
<td>196</td>
<td>2</td>
</tr>
<tr>
<td>Cholera Morbus</td>
<td>216</td>
<td>3</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>5169</td>
<td>42</td>
</tr>
<tr>
<td>Peptus Fibri</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12282</td>
<td>260</td>
</tr>
</tbody>
</table>

### Table K.III

Showing the proportion of cases of acute and chronic dysentery admitted and of deaths from these diseases per 1000 of all the diseases of the Stomach and Bowels.

<table>
<thead>
<tr>
<th>Admitted</th>
<th>Died per 1000 live Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dysentery</td>
<td>364.19</td>
</tr>
<tr>
<td>Chronic Dysentery</td>
<td>36.69</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>398.88</td>
</tr>
</tbody>
</table>
### Statistics - Bahamas and Honduras

#### Table I

<table>
<thead>
<tr>
<th>Disease Category</th>
<th>Total Admitted</th>
<th>Total Died</th>
<th>Deaths per 1000 People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhus</td>
<td>747</td>
<td>112</td>
<td>150.94</td>
</tr>
<tr>
<td>Diseases of the Lungs</td>
<td>24</td>
<td>4</td>
<td>4.68</td>
</tr>
<tr>
<td>Diseases of the Liver</td>
<td>7</td>
<td>1</td>
<td>1.17</td>
</tr>
<tr>
<td>Diseases of Brain and Nerves</td>
<td>120</td>
<td>7</td>
<td>8.19</td>
</tr>
<tr>
<td>Dysentery and Cholera</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Diseases of the Brain</td>
<td>14</td>
<td>4</td>
<td>4.68</td>
</tr>
<tr>
<td>Diabetes</td>
<td>11</td>
<td>4</td>
<td>4.68</td>
</tr>
<tr>
<td>Chronic Affections</td>
<td>20</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Genital Affections</td>
<td>8</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Accidents and Ulcers</td>
<td>51</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Wounds and Injuries</td>
<td>70</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Venereal diseases</td>
<td>38</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Diseases of the Eyes</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Ulcers and Ulcers</td>
<td>21</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>All other Diseases</td>
<td>8</td>
<td>8</td>
<td>9.36</td>
</tr>
<tr>
<td>Omitted in Medical Report</td>
<td>1152</td>
<td>140</td>
<td></td>
</tr>
</tbody>
</table>

From the above table, we learn that the proportion of the diseases of the obstetrical and venereal to the total number of cases admitted is 0.41% per 1000 and of deaths 0.80 per 1000.
Table LII

Showing the proportion in which the diseases of the stomach and bowels bear to each other.

<table>
<thead>
<tr>
<th>Disease of Stomach &amp; Bowels</th>
<th>Admitted</th>
<th>Died</th>
<th>Death per 1000 Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enteritis</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Dysentery</td>
<td>143</td>
<td>7</td>
<td>162 79</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yolica</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstipation</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>7</strong></td>
<td><strong>162 79</strong></td>
</tr>
</tbody>
</table>

Table LIII

Showing the proportion of cases of dysentery admitted and of deaths from that per 1000 of all the diseases of the stomach & bowels.

<table>
<thead>
<tr>
<th>Admitted</th>
<th>Died</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total number of cases of Die of Stomach &amp; Bowels</strong></td>
<td><strong>350 00 1000 0 0</strong></td>
</tr>
<tr>
<td><strong>Dysentery per 1000</strong></td>
<td><strong>162 79</strong></td>
</tr>
</tbody>
</table>
Table—Showing the relative prevalence and fatality of Dysentery in different parts of the World among White Troops.

<table>
<thead>
<tr>
<th>Localities</th>
<th>Admissions per 1000 Troops</th>
<th>Deaths per 1000 Troops</th>
<th>Deaths per 1000 Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>1.10</td>
<td>0.38 1.48</td>
<td>0.09 0.06 0.15</td>
</tr>
<tr>
<td>Gibraltar</td>
<td>1.24</td>
<td>0.98 4.01</td>
<td>0.81 0.35 1.06</td>
</tr>
<tr>
<td>Malta</td>
<td>31.92</td>
<td>2.40 34.32</td>
<td>1.91 0.39 2.30</td>
</tr>
<tr>
<td>S. American Islands</td>
<td>49.14</td>
<td>4.37 53.61</td>
<td>1.65 0.58 2.18</td>
</tr>
<tr>
<td>New South Wales (Australia)</td>
<td>5.25</td>
<td>5.25 0.39</td>
<td>0.39 73.77 73.77</td>
</tr>
<tr>
<td>Canada</td>
<td>11.13</td>
<td>16.48 0.56</td>
<td>0.56 18.94 18.95</td>
</tr>
<tr>
<td>Bermuda</td>
<td>126.06</td>
<td>3.39 149.39</td>
<td>2.56 0.51 3.07</td>
</tr>
<tr>
<td>S. America</td>
<td>119.33</td>
<td>7.79 127.12</td>
<td>10.08 0.85 10.93</td>
</tr>
<tr>
<td>Sierra Leone (Command)</td>
<td>28.76</td>
<td>17.00 206.70</td>
<td>11.39 16.45 24.84</td>
</tr>
<tr>
<td>Cape District</td>
<td>59.61</td>
<td>3.13 62.74</td>
<td>1.23 0.70 1.93</td>
</tr>
<tr>
<td>Frontiers of the Cape</td>
<td>27.00</td>
<td>6.49 33.49</td>
<td>1.96 0.50 1.46</td>
</tr>
<tr>
<td>Mauritius</td>
<td>163.01</td>
<td>8.39 171.40</td>
<td>8.75 0.39 9.14</td>
</tr>
<tr>
<td>Madras</td>
<td>158.52</td>
<td>188.52 15.03</td>
<td>15.03 74.73 74.73</td>
</tr>
<tr>
<td>Bengal</td>
<td>194.75</td>
<td>16.20 210.95</td>
<td>20.10 2.01 22.11</td>
</tr>
<tr>
<td>North America and East</td>
<td>162.95</td>
<td>4.37 167.61</td>
<td>1.02 0.76 1.78</td>
</tr>
<tr>
<td>Southern</td>
<td>86.74</td>
<td>8.45 95.19</td>
<td>2.21 1.36 3.57</td>
</tr>
<tr>
<td>Bahamas and Abbees</td>
<td>50.29</td>
<td>50.29 8.19</td>
<td>8.19 162.79 162.79</td>
</tr>
</tbody>
</table>
Treatment

Part Fifth

Treatment

The treatment of dysentery has been conducted on very different principles by different Authors: some relying almost entirely on the use of the Lanceet, for the purpose of subduing inflammation; others of the free exhibition of purgatives to remove the fecal matters lodged in the intestines. A third set conceiving that their success will depend on their being able to produce contrary effects, place their reliance on sudorifics, and a fourth trusting to the specific action of Mercury, exhibit it for the purpose of speedily producing an effectual abatement. It would be endless at the same time useless and unimproving, to enter into a minute detail of these and other methods which have been recommended for the cure of this disease: we shall therefore proceed at once to consider that combination of means which seems to us most suited for that purpose both from the Pathology of the disease, the experience of most of our modern Authors. In doing this, we shall follow the same order as we have adopted in our description of the disease, viz. 1st the treatment of the acute uncomplicated form, 2nd the chronic, 3rd the Complications.
Chapter I

Treatment of Acute Uncomplicated Dysentery

In this, as well as in other acute inflammatory diseases, its nature and consequences are such as to require the adoption of early and active measures for its cure, and much of our success will often depend on the promptness with which such remedies are applied.

When this form of the disease has set in, the indication of cure, to which we must first turn our attention, is the diminution of inflammation and action, and the first remedy which we shall consider as applicable for this purpose is bloodletting. This has been recommended by authors from a very early period, as by Aëtius, Prosper Alpinus, Botalus, Diaraman, and many others; in the second volume of the Medico-Psychological Journal published in 1799, Dr. Whyte, in a letter to the Duke of York, states that he had often taken from 50 to 60 ounces of blood in a couple of hours and thus saved many valuable lives. His example does not appear to have been followed at that time in India, indeed, Sir George Ballingale states that one of the reasons which restrained him from using the lancet firmly at the time of his arrival in that country (in 1827) was a due reverence to the opinion of the older practitioners, which was almost universally against it.
Treatment of acute uncomplicated Deperty — Bleeding

He also adds however that "of the few cases of Deperty in which I have employed bleeding, the Majority have, I think, terminated favourably, & of those in which the result has been fatal, the appearances on dissection have been such as to excite a sentiment of regret at not having carried the evacuation farther," the opinion of many other practical authors is equally favourable to the use of this remedy in the form of the disease which we are now considering. Among these we need only mention Bramfield, Wilson, & Annesly in India; Sir J. Hope, Dr. Ferguson, Sommers & Forbes or who employed it in the peninsular campaigns.

2. the Deperty of the camp. Simple bleeding at the commencement of the attack, because the disease was partly inflammatory & accompanied with fulness of blood. Measures likewise used, successfully when the patient were strong suffered from sharp pain in the bowels, without being prevented by the long quiet jule with which the disease was often attended.

Notwithstanding the testimony of these and many other authors, there are not wanting those who question the propriety of bleeding in tropical Deperty.

It has been said that the European constitution side not bear the evacuation and that the activity which supervenes in the progress of the disease
Treatment of Acute Uncomplicated Dysentery—Bleeding

inside the employment of such a remedy. Experience, however, to which in medical science all hypothesis must yield, would seem to show that these objections are unfounded for it has been observed by some of those who have em-
ployed this remedy most intensively, that the ability referred to is much more likely to occur when defecations have not been employed, that the patient actually recovers with less diminution of strength, and certainly with much less than is produced, by a long continued chronic dysentery or diarrhoea, into which the acute form more frequently passes when bleeding is neglected.

Among Europeans in hot climates, particularly those who have recently arrived, the inflammation action is generally more intense, and passes more rapidly to an unfavourable termination; hence in such cases especially if the patient is of a full habit of body, with a full hard, tachycardic pulse, severe commin of fixed pain increased on pressure. A full bloodletting from the arm should be employed. When carried to a sufficient extent it will in some cases be unnecessary to repeat it, but when a sufficient quantity has not been withdrawn at first, or the symptoms continue unabated, it will be necessary to repeat the venesection, and assist its operation by the application of leeches to the abdomen.

In old residents or natives of warm climates general bleeding
is frequently inadmissible, \\n
and local depilations must be had \\n
recourse to, such as leeches to the Abdomen in numbers \\n
proportioned to the circumstances of the case, \\n
or followed by warm poultices and fomentations. It has been recom\

mended particularly by some French writers to employ local \\n
depilation by the application of leeches to the Abdomen, a \\n
practice which seems to be often productive of much benefit, \\n
the only objection that can be urged against it—is that \\n
the leeches coming in contact with the liver are apt \\n
to irritate them & lead to the production of internal \\n
when the disease has been treated by bleeding at the \\n
commencement, blood seldom appears in large quantities \\n
in the stools, but even after it has already been dis\

charged, that alone should not prevent us from em\

ploying the remedy. Either generally or locally, any \\n
this means further loss of blood by the intestines \\n
may be prevented. The says Dr. Johnson, blood appears \\n
alarmingly in the stools, whether the fever run high or not \\n
cessation may be employed without the smallest apprehen-

sion of that disagreeable— Debility—

Thus the patient complains of heat, burning, & looseness in the \\n
course of the colon, local depilations at least should be ap-

plied. Even in the advanced stage of the disease, when \\n
the energies of the system are much impaired, the applica-

tion of 3 or 4 leeches has been attended with advantage.
The epidemic of this country seldom requires a treatment so active as that of tropical climates, but even in epidemic cases bloodletting is frequently found a useful remedy, in removing the symptoms hastening the disease.

"We are often cautioned against compulsion, which was certainly the remedy the least efficient in its effects, the most uniformly useful of any which we employed in the "Mt. Washington Hospital" (Cheyne).

The best means of cure to which we shall allude is the use of Purgatives. This class of medicines has been long recommended in this disease, & when judiciously employed they are of the greatest service, and perhaps none have been used with less discrimination.

It is of importance to ascertain at the commencement of the disease, whether focal matters are lodged in the Intestines, in such quantity as to require the exhibition of medicines for their removal. The principal circumstances which indicate this presence are a loaded foul tongue, hardness of stool, in any part of the colon or the Cecum, the appearance of the evacuations, & the occurrence of pellets of feces in the stools; if these symptoms are present, more especially if the attack has been preceded by constipation, or even a natural state of the bowels, the exhibition of Cathartics is necessary after evacuate has been performed. In some cases it
may be proper to employ a purgative medicine &c. &c. so as to induce the greater certainty whether such feculent
accumulating in the intestines, and when we are certain that
they still continue to be lodged in the intestines, the means
for their removal must be repeated. On the other hand
when the disease has been preceded by diarrhoea, they
should perhaps be entirely omitted; or when they have
been employed without producing a discharge of
lumpy and unhealthy faeces, no advantage is to be derived
from their repetition, on the contrary they act injuriously
by aggravating the griping, tenesmus increase the dis-
charging of blood &c. &c. However during the pro-
pess of the disease the patient has not discharged
any feculent matter for some time, if the tenesmus
is severe a mild purgative may be prescribed, to as-
certain if accumulation has taken place. We think
in all cases in endeavour to distinguish as far as possible,
between the irritation, & tenesmus produced by the in-
flammation action alone, that which is caused by the
retention of feculent matter.

Much difference of opinion exists, as to the adoption
of purgatives that should be employed; some re-
commend those of an active temperament while others
day that mild laxatives should alone be used, the
saline cathartics as Sulphate of Magnesia or of Soda
Treatment of Acute Uncomplicated Dysentery—Laxatives

Laxatives, &c., are recommended by different authors, & they are considered by some to be more serviceable when used with antiperistalsis. It is probable however, that brisk cathartics given in the irritable condition of the intestines will not produce frequent stools, but increase the irritation & produce severe evacuations. In some cases the rapidity of this action is of importance & in such it is advised to unite them with infusion of Senna & with infusions of Senna & Gentian; but in ordinary circumstances the oleaginous laxatives as the C. Picini are perhaps the best.

Mr. Annesley advises, when the disease comes under treatment at the early part of the day, a specimen of Codex should be given after the first bleeding, followed in a few hours by a purgative draught assisted by a laxative decoction which are both to be repeated if they do not act sufficiently in a few hours. The Codex is to be again administered at bedtime, the same quantity, with 2 or 3 grains of Opium, and accompanied with an Anodyne injection, for the purpose of preserving sleep and a quiet night, of lessening the severity of the symptoms, diminishing the frequency of the stools, rendering the evacuations more free & copious afterward, whilst at the same time it assists
Treatment of Acute Uncomplicated Dysentery—Mercury

In determining the circulating fluids to the surface
The remedy of Colonel given before the purgative draught
is to correct the libidinous intestinal secretions, and
prepare them for the surface on which they are loaded
for its operation; and W. Annesley considers that the
production of Ptyalism is not necessary in the acute
form of Dysentery, although many place their principal
if not their entire hopes of curing the disease, on this
means of producing the specific action of mercury. For
this purpose different preparations have been used
externally as well as mercurialunctions to the
surface; but in the form of the disease which we are
now considering, the mercurial treatment would be
notable to be generally applicable. Some authors would
lead us to suppose after giving the remedy to the extent
of producing ptyalism, Sir George Ballingall abandoned
the practice having found it "delicately
unsuccessful," and also from observing in practice
that the dysentery did not depend on absence of the feces,
but consisted of inflammatory action of the large
intestines. Sir S. McIvor also states that "after repeated
failures closing Some Men, Melton saw the necessity
of giving trial to other remedies than Colonel." 2
Johnson
was the first to recommend the employment of small
doses of this medicine repeated 2, 3, 4 times during a day;

1 Oil of mercury 1/25 of a dram 2 Sketch of Fig. 696 p. 136.
This was the method which he followed in ordinary cases, "but" whenever he "in doubtful cases, I had occasion to
push boldly on for Bryaenm. I gave the Colonel in several
cases, which I found by repeated experience, to eat either
than other: smaller or a larger quantity of that medicine
as a curiosity, but as a certain fact." In other cases that failed,
man advised the Colonel to be used in smaller doses
frequently repeated, employing at the same time, bed-
letting, anodynes, raphies, purgatives, Emmittus'
epistes with a flannel bandage to the abdomen, and
under this treatment continued for a few days better,
that the month side became less. Every bad symptom
disappeared. But as the remedies are used in connection
with the Mercury are exactly those, which in the hands
of others have proved most successful in curing the dis-
case, it may be fairly questioned, whether the Bryaenm
should not be considered as the effect of the removal of
the athero-cad action by these means, rather than the
cause of the cure. In those cases, where the symptoms
have disappeared upon the suppression of Bryaenm or
often seems rather that the Mercury acts by the removal of
the previous tendency of the disease than that it has
caused this result; instead of being a cause of recovery
the Mercury influence is merely one of the first
Effects of a favourable change in the Course of the Malady.
Although therefore we consider the introduction of Potassium unnecessary yet the sublimation of a large dose of Calomel occasionally is often beneficial, when combined with the other means of Cure, it seems to act by its soothing influence on the Intestines. It has been stated that as Mercury when extenuingly used is known to produce symptoms resembling those of Dysentery, such as piping pains in the Bowels, tenesmus, & nausea is bloody stools; it cannot be expected to act beneficially in the cure of that disease. This however does not appear to us to be deserving of so much importance as has generally been attached to it. In fact we find that some of those authors who say that Mercury is not beneficial in the acute well understood its efficacy in the chronic form of Dysentery, where the circumstances now mentioned would render it equally improper; thence we can only admit of the use, & prudence of the Homœopathic Masters. "Purifiable afflicting Curative" Injections form an important part of the treatment of Dysentery; they are well fitted to assist the operation of Castor oil given by the mouth & to both the irritable state of the large bowels or they may be necessary for the purpose of checking the profuse discharge of Blood that sometimes occurs. To accomplish the first of these objects the same rule of moderate bulk, all irritating substances & the rejected from its composition, and
Treatment of Acute Uncomplicated Dysentery—Injections—Anodynes

Ward purgative enemas alone need. Those consisting of

arrectum oil or oleum with the tincture of pith

or soda or the volatile spiritue oils have been

recommended. To soothe the irritability of the large

intestines the ordinary anodyne enemas should be employed,

as those of starch or rice gruel or decoction of licorice

with tincture of opium or of Eium or of Myoporum

As a rule of this measure may be frequently repeated

but should always be small and proofed as ounces that it

may be sufficiently long retained. Opium has also been

used for the same purpose in the form of suppository.

Various vegetable and mineral agents have been em-

ployed to arrest the discharge of blood as decoctions of differ-

ent kinds of bark, solutions of the preparations of copper

and of zinc, and solution of acetate of lead and bismuth.

In some cases it has been found that even the intro-

duction of the injection pipe did not be borne by the Patient

in such we must depend on anodynes given by the mouth.

After vascular depletion has been carried to a sufficient

extent it should be evicted by the Patient

in cases where

that is necessary, opium or other anodynes have been

generally recommended—opium is also frequently

used in combination with other substances according to

the effect that it is wished to produce, as with sodium

c or with bismuth for the purpose of producing diarrhea.
Treatment of acute uncomplicated Dysentery—Emetics—Mucilages—Substances—Emetics

but of this we shall say more immediately.

Amongst the other substances which have been employed to allay morbid sensibility and remove spasm the most effective are: ammonium, Belladonna, & Tobacco.

Emetic & mucilaginous substances are often very beneficial. They are much employed as a vehicle for other more active remedies, and when the small quantities are in an irritable state, or the patient complains of anorexia, or dysuria, they are often very useful, but when given by the mouth they act of less benefit. Their soothing effect seldom extends to the large intestines.

The object is only attained by instilling them in the form of injections, when they become blended with the morbid contents & secretions of the bowel, they render them less irritating to the diseased surface.

Emetics have been prescribed in the case of Dysentery, even as far back as the time of Hippocrates, who advises that they should be used in the early stage. In later times they have been highly recommended by some authors & condemned by others. Some who have employed them, some give a preference to antimonials & others to Sesamum. When the frequency of symptoms of Dysentery appear, such as chills followed by flushes of heat, griping pains, with colicky pains & paleness of the countenance, etc, it may be proper to exhibit an opium or an emetic followed by a full dose of Calomel. That in 2 or 3 hours by a frequent draught
Treatment of mild Uncomplicated Dysentery, Emetics, Antimonials

and laxative enema, after which the patient may be placed
in the warm bath, well rubbed with an evening oil placed
between warm blankets, as these means are said to have often
proved successful in cutting short the disease's last hours.
In this disease, many sources of faulty diet, as to whether
Dietetics really do possess the power of checking the progress
of the affection. The only thing circumstances in which Druke's
appear to us to be indicated, are, when any thing injurious
has been recently swallowed which we wish to remove, or
when the patient complains of depression & nausea, accompanying
with a sense of a load at the bosom. The power which
they have of retarding perforation, has in all probability
been frequently the cause of their beneficial effect in this
disease; for the remedies employed for that purpose
are among the most powerful which we possess for
treating Dysentery.

Dr. Morely who was one of the most strenuous advocates for the
indirective method of treatment, went so far as to say that
"The intermittent fever is not cured with more certainty
by Peruvian bark, than Dysentery by Baptistics."
Antimonials are preferred by some authors, given in the
form of Sarm's powder, or pilules antimonials, combined
with Colomel or with Colomel Oppium; or the antimonial
tonic may be administered along with Sublurine of Oppium.
The Liqueur Antimonico carbonate, with small doses of Colomel.
Treatise of Acute Uncomplicated Dysentery—Harcarabha

and which has also been recommended. Doses (of water given either)
in repeated small doses or in larger quantities at more distant
intervals is one of the most useful means for accomplishing
the object in view, but of all the preparations no one has per-
haps been more extensively employed or more highly recommend
ed than Harcarabha. This drug was first prepared in this
disease in 1635 by an anonymous Padشاهs Arikha, supposed
to be Manuel Inlisco & afterwards recommended in 1658 by
Ris. who found it in common use among the aborigines of North
as an antidysenteric and he employed it in doses of a drachm
in the form of infusion. The circumstance however which
brought it into more general use, was the Physician of Louis
the Fourteenth, having by employing it cured the Dauphin
who was dangerously ill with dysentery. It has been administered
in different forms & for two different purposes, either in large
doses in the form of powder or infusion, with a view to both the
intestines; or in small doses given at such intervals as to produce
harmonic, but not vomiting. Balmain appears first, Blaise was
employed it in large quantities combined with large doses of buchara,
a practice which was afterwards adopted by many others.

The plan of giving it recommended by M. Silvandier, who digested
the hot regimen, who directed that several grains of white
opium to be administered, followed by one more ounces of
infusion of Harcarabha, was extensively employed in India & upon
by Sir George Barkingale the many beneficial.

1866 of India, 1573
It may be combined with almost any of the other remedies, and indeed it has formed either as an elixir, a nauseating, or a draphecetic mixture, the basis of almost all the therapeutical means recommended by many distinguished authors. Use as well as antimony to other similar remedies, as an antiphlogistic, both by preventing the patient from dying when given in a nauseating dose, and by determining towards the surface. Dr. Reimer has strongly recommended the employment of large doses of ipecacuanha, with the view of "relieving tenesmus, rotation, a healthy state of the alimentary evacuations & in more acute stages of the disease, promoting the healing of intestinal ulcers." The administration is in doses of six combined with extract of senna or blue Filip repeated every night at bed-time, given in this manner he seldom found anything to be produced. The patients have soon taken it without being aware of its nauseating property; the first effect of the ipecacuanha employed in this way in many cases of acute dysentery was found to be a slight increase in the secretions of the bowels, the stools becoming more expulsive of occult pain, tenesmus diminishing the quantity of blood immediately becoming less, becoming disappearing altogether.

Being in the irritable state of the stomach, it is often of importance to administer aperients in small doses. When this is the case a dose of elixir of opium with quinine is frequently advisable, the irritability being conforted of opium with antimony or ipecacuanha. It can be found most useful, but when there cannot be borne in sufficient quantity to act on the skin Wednesday.
Treatments of Uncomplicated Dysentery - Both Uncomplicated and Complicated

recommends the administration of a warm bath, either alone or combined with opium.

To promote the action of the bowels, a warm bath will be found particularly efficacious, while at the same time it relieves the tenesmus and dysentery. It diminishes the frequency of the stools, promotes the flow of urine, and assists in procuring sleep. The temperature of the bath should not be too high, as to produce a general excitement but will be found more beneficial when given at a lower heat. Piles may be decreased by heat, but not be much above that of the body. The vapour bath, the application of any heat, have also been recommended by Puller. Poultices, when applied to the abdomen, are likewise very beneficial. "I have," says Dr. Gilbert Blease, "in my private practice found great comfort in applying a poultice, by a fomentation to the limbs with hot water or injection of camomile flowers with some Laudanum spirit, upon the clothes." On coming out of the bath it has been advised to use friction with brisk oil to the surface, the patient should be immediately removed to a warm bed & determination of the surface promoted by warm clothes & warmth. And I need scarcely add that great care should be taken to stand as much as possible against cold or currents of air while the body is under the influence of these remedies.

Dr. Whyte recommends that the abdomen be kept covered with a cloth of flannel.

1. Diseases of Fevers page 182
treatment of all uncomplicated Dysentery, Soon after the

Breadage of 5, 10 or 12 or more inches broad, and that the Patient

Should immediately put to bed, invested with a flannel sheet

Or waistcoat with sleeves. The advantages of this practice were

Invented by Dr. Druard; it was also tried by Dr. Lascelles Fryer

in Egypt who found that in recent cases when employed

With the appropriate remedies it seemed to shorten the cure,

But it was most serviceable in chronic cases in convalescence.

It is worthy of remark that this bandaging of the abdomen

Was with flannel and maintained as long as the time

Of disease. In *a* description of those who have written

On this subject I find the following observation from that

Author: "It is wonderful what good effects are produced by

Blisters, as are used to bleeding wounds after the in-

flammation has abated, such as are used for fractures

Applied round the whole belly sloping to the back." ³

Blisters & Infusions, Applied after the instance of the in-

flammatory action has been subdued, are productive of

The greatest benefit. Infections with Camphorated liniments

or with Cotton oil, also the Euphrasite Glycerine applied

to the abdomen have been used. These means however are less

Effective than a blister but when the urinary organs are affected

Blisters are apt to aggravate the irritation in them, when this

Happens drinks with soda or saline doses of Conipharine

afford relief. The greatest care should be taken in dressing the blister

surface, and by removing the blister when niceties is provided

1 Observe Doctrine & Diagnosis page 112. A Visit to Egypt page 187

3 Observe in Another page 304
and applying a poultice, there is less danger of its affecting the lungs, when the patient is much debilitated after the general of the torments, and tenesmus by the antiphlogistic remedies, an infusion of Cinchona or Columba, upright into the bowels, with Camphor Eq. Amt. Add, a small dose of Specieus, will be found very serviceable.

When the relapse happening all our endeavors to check its progress, the disease passes on to mortification of the intestine, & c., in consequence, which more frequently happens when the patient has not been under treatment at the commencement of the attack, we must endeavor to support the strength by administering balsam twice 1/4th drachm, by the employment of aodynes & rectics.

If the acute form of the disease does not yield to the treatment employed of passes into the chronic, the means adapted to that state to which we shall presently advert, must be used.

The treatment now described must be varied more or less according to the severity of the attack, constitution, and habits of the patient. Among Europeans recently arrived in hot climates, decidedly antiphlogistic remedies are more generally necessary, while in old residents while there is among the natives the treatment must be somewhat modified. The original constitution, habit of body, & mode of living of the natives indicate the necessity of
Treatment of Chronic Dysentery

such a modification; their habitual use of warm spices and stimulant tonics render it often necessary to combine these with the other means employed.

The acute Dysentery of temperate climates can be treated on the antiseptic principles alone described, but as we have already stated, it seldom requires the employment of such active measures, as those which are requisite among Europeans in tropical countries.

The only other circumstance which remains to be mentioned is the diet regimen that should be prescribed, but we shall postpone the consideration of this till we have concluded the therapeutic measures that must be followed in the other forms of the disease.

Chapter 7

Treatment of Chronic Dysentery

In those cases in which after the acute disease has been subdued the discharges continue either frequent without termination or tenacious and do not exhibit an unhealthy appearance the disease improving the patient's strength & appetite gradually covering a remaining unimpaired, the discharges should not be checked by the employment of opiates or astringents, as they are beneficial in relieving the engorged vessels in restoring the bowels to a more healthy condition; but when the appearance of the evacuations the symptoms indicate that the disease in the intestines is still going on, it is
Treatment of Chronic Dependent Bladder.-The time of Bath.

Indications that Nature must be assisted by Art in removing it.

Even in the chronic forms of the disease, it will sometimes be necessary to employ vascular depletion, to remove the液晶
of inflammatory action which sometimes exist along with the marked state of the ulcerations. Hence if the patient
complains of looseness in the abdomen, increased in pressure, and if the evacuations are slimy, or mixed with blood and
accompanied with a sense of heat, griping, tenesmus, or
lethargy, with fever, restlessness at night, and thirst, local
depletion should be adopted, as it is more frequently nec-
assary when the disease has followed an acute attack
in which bleeding has not been employed. In some cases
however the patient's strength is so much exhausted
that even the application of leeches is inadequate. Under
circumstances benefit will often be derived from certain
irritation produced in different ways, as by flannel
rings used in hot water, and moisture with spirits of tur-
glycerine applied to the abdomen; continued as long as
the patient will endure it, or by the application of
bladders followed by gentle.

The warm bath, stimulating friction to the abdomen,
and the flannel bandage side also be found useful.
The flannel bandage acts in different ways, it evokes
a certain degree of counter irritation on the surface
of the abdomen, keeps up a uniform temperature.
by wearing it, the patient carries constantly along with him, a bath of the best temperature, inviolable in its heat, which will or no occasion weten him by profuse perspiration, to which, never laid aside, till it is no longer necessary. Cannot expose him to the effects of cold by change of temperature, which the relief afforded by the pressure of the bandage when first applied, is also considered by the author, as one of the benefits to be derived from it; it likewise acts as a support to the abraded towels.

Mercurials have been strongly recommended in chronic diabetes, and they are more particularly applicable when the lungs is affected. If, says Dr. Dallingale, in treating of the acute form of flux, I have refrained from an indiscriminate use, as I conceive unmerited commendation of this powerful medicine (Mercury) it is only in hope of being able to urge its importance with more force in the form of argentic, now under consideration; and recommend an implicit reliance on it in the chronic form of flux; to ascribe an almost unlimited power to it in this disease, I express an opinion that it will seldom disappoint our most sanguine hopes. All the preparations of Mercury have been recommended, but practitioners seeming to prefer the one which he has most frequently employed; but it is probable that they are all equally applicable. The most common forms in which it is used, are, the blue pile, or Pile Muriaticum, of Colonel Taylor.
in the proportion of 3 ozs. to 1 of the latter; to this fill a small quantity of Opium in a may be added with advantage, for while the Calomel acts on the devours particularly that of the liver the biurein urine will restrain the discharge from the bowels & determine to the surface of the body, with the same view 2 or 3 gr. of Calomel may be given with 1 oz. of Dover's powder repeated every 3 or 4 hours. In addition to the external application of mercury, poultices with camphorated or tincture mercury and rendered more so by the internal use of mercury. It is generally concluded that in the form of the dose of which we are now speaking the mercury should be continued until it even after the trouble is affords, there seems an advantage however to be derived from producing the effects of the regimen prescribed which some think unjust, but on the contrary, if we consider the exhausted state in which such patients are, it will be evident that a remedy which tends to increase the activity must be injurious.

While nitric acid with opium taken internally has been much recommended by Dr. W. McGregor it may be employed at the same time as the Nitric Nitratus Acid, which Monday has found very efficacious.
Treatment of Chronic Dysentery. Astringent-Anodynes particularly in obstinate cases. It is used in the form of infusions or in that of poultice, or by pouring it on the abdomen by poultice. The infusion of Aperient of prepared Linum with Mucilage may also be given once or twice a day in the form of enema. In the advanced stages and when the Malt drinks continue to flow and a long-established habit of acting the liberation of the mucous surface of the bowels astringent remedies both vegetable and mineral have been recommended, as infusion of Aconite, or of Rhubarb, the preparations of Salicylic, Ains, Hematoxylin, Acetate of Lead, Sulphates of Copper, & of Linum, &c. Newman & Nesle 67 recommends a mixture of the two last, Nitrate of Silver either with a small dose of opium has also been used. The infusions of the different astringent drinks may be given along with Laudanum. It is generally necessary particularly among the dark races, old residents in warm climates, to unite aromatics, such as cloves and the other spices of the mineral astringent. The most powerful is the lead of lead, which may be given in the form of pills combined with opium. This class of medicines is also used in the form of injections.

Opium other Anodynes are beneficial in allaying irritability and relieving pain, given either alone or combined with other remedies, administered by the mouth or in the form of enema. It administering medicines in the latter
Treatment of Chronic Dysenteries - Perpetuates Toxicity through
form, the same circumstances should be attended to as have been
mentioned in tracing of acute dysenteries. The treatment then made
on emollient & mucilaginous substances apply equally to the
form of the disease of which we are now treating.

Cathartics of local manner often occur hence the occasion
exhibition of purgatives is necessary for their removal as
well as that of purulent secretions. Here if a mild saline
be employed, after which injections of emollient or
emollient substances may be exhibited, it should be re
called that they are more frequently necessary when
spasm & astringents have been employed.

Tobacco preparations have also been much used,
the Canadian & Peruvian balsams, but particularly the Balsam
of Copaiba either with spirits or aromatics, Magnesia and
astringents, given by the mouth & administered in injection.
Varios other remedies, as Raspica & its active prin
ciple, resins & glues, have also been recommended to by different
authors. Injections containing different stimulant & astringent sub
stances may be employed. When ulcerations occur in the
lower part of the intestines as ulcerations of the Astringent
Balls. Injection of Kalomel & Calomel, solution of Sulph.
of Lime, M. of Silver, & acet. of Oxid, also lime waters with
Raoulth in the form of black pitch, emollient & mucilaginous
substances should be added to the injections which should
not be large & constipation must be guarded against.
Treatment of Chronic Dysentery.

Benefit will also be frequently produced when injections are made by the repeated application of perforations to the abdomen or blister or the introduction of jets.

Among the natives of warm countries, in addition to the other means, remedies possessing a tonic stimulating property are generally necessary, to meet the atonic condition into which they are brought by the continuance of the chronic disease. At this time it is requisite to employ remedies of this nature the occasional use of purgatives in them, as well as in Europeans, should not be neglected. However, there is reason to suspect that accumulations of local matters formed from decaying parts, place in the perineal veins, as they are apt to lead to ulceration in the perineum or gluteal, which may occur in the nature of constitution, without any appearance of previous acute symptoms.

In describing the treatment of acute dysentery, we have already mentioned that which is applicable to particular symptoms. As shall be as in the present chapter, as such symptoms are more or less common. As all the forms of the disease which be described after the treatment of the complicated forms then been mentioned.

There is one circumstance, however, viz., the occurrence of structures in the colon which are more generally consequent on chronic dysentery, with the consideration of which, therefore, we shall conclude this chapter.
TREATMENT OF CHRONIC DYSPEPSIA - DISEASES IN THE COLON

They often occur in the advanced stages of, or as a sequel to, the chronic disease. It is generally difficult to ascertain their existence with certainty, during the life of the patient. The constipation will seldom afford any resistance both because they are generally beyond the point to which that treatment can reach, or the condition of the mucous surface of the bowel generally fails to see. We must therefore depend on the general symptoms by which the case is characterized. They may be delayed if after repeated attacks or in the advanced stage of the chronic disease the evacuations are bulky and contain undigested food, with phlegm of bile, increased by albuminemia. If they are preceded by a feeling of weakness in the course of the colic, with a sensation of a load or fullness about the caecum, weight, hypochondria, or between the epigastrium, tenderness, if it is difficult or impossible to obtain full or frequent evacuations, while the patient is not suffering from tenesmus or other acute symptoms, if there is distension of the abdomen, flatulence, rumblings, and a foul breath, or in any case to fame an irritable state cannot be fully thrown off, or returns immediately. In these cases also the region of the caecum, ascending colon will frequently have a hard, thin, tender, the patient will sometimes complain of a sense of cramping, shivering, or tearing.
Treatment of Chronic Dependent-Opercula in the Colon.

or of a feeling of dropping in some part of the colon before the evacuation of the bowels.

The indications to be followed in the treatment of these strictures are to prevent the accumulation of fecal matter above them and the consequent irritation and distention, by preserving the contents of the large intestine in a fluid state, and also to en-\[200\]courage the chronic inflammation irritation that often exists in the affected part.

To accomplish the first of these objects, all irritating cathartics should be avoided, and the use of the laxatives, refrigerants, and antiperistaltics employed. For this purpose,

- Injection of Astragalus with Magarica, Strychnia of Soda, Manna, or a dose of Decocine of Ipecacuanha, or
- Of Conium, Nitrate of Soda with Carbonate of Soda, or a small dose of Camphor, or
- A solution of tissue with this oil, or
- Borax in the form of injection. Other such remedies will be found beneficial. To accomplish the second of gentle friction to the abdomen with aromatic and antiinflammatory

- Liniment tincture of camphor or
- Lin. cap. cip. cip., or the application of the Ipecacuanha or
- A mixture of camphor with or without the extract of belladonna, or the counterirritation produced by the Cotton oil or other irritant,

along with a properly regulated farinaceous diet. This treatment frequently occurs in the Rectum. When this is the case, the contents of the bowels should be kept.
Treatment of Septicemia Complicated with Typhoid Fever—Bleeding

in a fluid state, great care should be taken to preserve the
liver & intestinal locations in a healthy condition, and
with the view of curtailing the local matters less irritating
to the capillaries, By injections of an Influenza, Aliment,
Mucilaginous & soothing nature should be employed.
In cases of this kind, the Bougie and sometimes a wa-
ter, it should not however be trusted to alone, in using
it it must be recollected, that the diseased state of the
Membrane renders it more easily injurious
by its employment.

Chapter III

Treatment of the Complications

Section I

Treatment of the Complication with Disease of the Liver
we have already mentioned that when the Disease of
the Liver accompanies the acute form of Septingy
the former is likewise frequently of an acute or sub-
acute character, hence the antisyphilitic method of
treatment is necessary.

Bleeding Should be Employed either generally or
locally or both according to the circumstances of the
case. This complication frequently occurs among old
European residents in warm climates, in whom
general bleeding can seldom be used, but local ablation
should not be neglected, it may be repeated as often
in the condition of the patient indicates its necessity; after which purgatives are to be given in the manner already recommended in the treatment of simple aperienty.

The same, both opoponaxis and opium, and potent inunctions, are also to be employed, but in addition to these, this dose must be used, which acts more particularly in removing the affection of the liver, as it has either produced or tends to perpetuate the aperientic disorder.

With a view of exciting the most vigorous secretion of that organ, mercurial preparations are generally used. They may be given internally in the form of calomel combined with opium or of the Blue Pill, while friction with camphorated mercurial ointment is employed over the region of the liver and abdomen.

The affection of the liver is however more frequently of a chronic character and associated with aperienty, in such cases the mercurial preparations are more particularly beneficial; they may be combined with laxative and diuretic remedies given internally, and the mercurial liniments applied externally, or the mercurial solution in the manner already mentioned. The application of a mercurial mercurial plaster to the abdomen, or containing produced by saltpetre of antimony, or the repeated use of blistering or calomel or issues will also be found very serviceable.
Treatment of Dysentery complicated with Gout and Fever

When the dysenteric affection appears the symptomatic of the disease of the lower part, kept up by chronic inflammatory action in that organ the means of cure differ but little from that which is necessary in the treatment of chronic hepatitis, viz. consist in local depilating purgatives. Mercurials & nitric acid may be employed according to the circumstances of the case; as well as the external applications above mentioned. In addition to these, the warm bath & diaphoretic medicine, alike be found beneficial.

The antitoxin with the alternative dose of mercury as gently as possible may be employed when we have reason to suspect acidity of the contents of the prime vis, which often occurs when the bile is deficient in quantity or altered in quality. In such cases, the evacuations are generally of a frothy nature or a pale & less fermented appearance.

It is unnecessary to dwell longer on the treatment of this complication. After what has been stated in treating of chronic dysentery, as it must be conducted much on the same principles as those recommended, and when the dysentery is symptomatic of disease of the lower part, the means adopted for the removal of these effects must be employed.
Section II

Treatment of Dysentery complicated with Disease of the Spleen, Pancreas & Mesenteric Glands

In unhealthy situations and after intermittent and intermittent fevers, the complication with disease of the spleen is most frequently met with.

It will not, in general, be necessary to employ bleeding, but in some cases local application will be found beneficial. The other means of cure should consist of the occasional use of purgatives with stomachic elixirs, or Cordial, like Rhubarb Aromatic & Spermaceto, this last mesy has been recommended in combination with Elixir of Iron & other Tonics.

Emollient & Anodyne Vermota & diaphoretics may also be employed; likewise the warm bath with fomentations to the abdomen, turpentine gymnasium or plasters followed by fomentations and the other means recommended in the chronic form of simple dysentery.

Enlargement of the Spleen occurs along with chronic dysentery, in the dark roses, when the chalybeate preparatives with Rhubarb occasionally stomachic preparations will be found useful.

The complication with disease of the Pancreas or Mesenteric Glands is with dysentery overstated but a treatment similar to that just described...
Treatment of Djh' complicated with Intermediate Remittent Fevers

will be applicable in both. In addition however to the medicines above mentioned, the different preparations of the same have been much used and with great benefit, such as small doses of the Tincture of Mercury or the solution of Hydrate of Potash with Jodine, a small quantity of Cantharides, the same bath and the external applications above mentioned, &c. can be employed at the same time. When the fluids are bloody the patient complains of splitting pains, instead of giving the Jodine internally it may be rubbed in the form of ointment on the surface. O'boyland states that in the Mesenteric complication occurring in children he has seen great benefit derived from the Tonic Infusion of Potassa with a tonic infusion, with Syrupus Salpetarius & Tinctura officii & from the Chlorate of Potassa with Dover's Powder, a turbutate of the motion of the bowels being given every 3rd or 4th day.

Section III

Treatment of Depenying complicated with Intermediate & Remittent Fevers

It is very frequently observed in compound diseases that now these remedies are employed which are adapted for the removal of one they produce an equally beneficial effect on the other. Thus with regard to the present complication the Depenying become often to be a symptom of the pelvic affection and hence the means adopted for the cure of the latter...
have also put a stop to the former disease. This was observed by Lepérin to be often the case. While on the other hand Tennier was successful by directing his remedies against the apoplectic; in fact, "as each symptom of the apoplectic disappeared so lengthily vanished the fever; in the manner described, it vanished in many instances. However, this does not occur, but if we succeed in removing one of the diseases, the means were especially adapted for the cure of the other will be employed with greater chance of success.

It was not our intention to enter into a minute detail of the treatment requisite in apoplectic complications with different forms of fever, as we have already described it sufficiently length that must applicable to the uncomplicated cases when it occurs as a symptom of the febrile affection the treatment must be partly regulated by the nature of means of cure adapted to the reigning fever which often varies much at different times. In some places, we shall therefore only give a short account of the means which some of these authors have found most successful. The propriety of employing blood letting must depend much on the nature of the complicating fever; purges, however, are generally requisite.
and as the biliary organs are frequently complicated, 
Colonel Tile will be found very efficacious.

Principles may be requisite for the same purposes as in simple dyspepsia. Dyspepsia, in its first stages for the purpose of alleviating irritability, will also be found beneficial.

Numerous authors have spoken in the highest terms of both in the treatment of hepatic complications with intermittent or remittent fever. Morton seems to have been the first who employed it; the admixture of it in combination with opium in employing it in the dyspepsia complicated with the tertian fevers of Minorca. Telephone found that it often put a check to both the disease, "especially if the exacerbations began with chilliness and terminated in sweats; at other times it removed the fever, the flux continuing without much alteration." As he writes that "when the dyspepsia assume the intermittent form, the return of the flux or stage is to be prevented by an early exhibition of Peruvian bark in a large dose as the stomach will bear. If the disease is more continued but interrupted by alleviations & exacerbations the bark is to be used during the former; in the latter, the other Medecine Thermes of treatment are to be adopted. Try a warm Bath at the end of the bark an
Treatment of Dysentery Complicated with Typhus

In the treatment of this complication it is even more necessary than in that with intermittent or remittent fever, the patient is very much guided by the fever that accompanies the dysentery.

Nurses are necessary for the same purposes as in the other forms of the disease. A draught of caster oil and strychnine while sometimes he found very useful. The warm bath may also be employed. The patient will be well rubbed on coming out of it placed between warm blankets with regard to the cold and the typhus. Gessner makes the following remark. "I did not try the cold affusion or the application of cold in any form having learned by experience..."
Treatment of Septicemia complicated with Syphilis

That it does not succeed in fever with affections of the bowel.

And moreover the tepid affusion in a few cases & the

with abatement of heat with no lasting benefit.

The patient complained of the fatigue, pain of moving &

of the chilliness effects of the remedy, which was therefore

abandoned. He sympathy of the latter Lemmermann states "it is

without doubt the principal remedy in this species of
debility." He administered it as an emetic at the

beginning & after purging the patient he again

employed it in very small doses, taken every 2 hours

in mixture of brandy; it may be given alone or with

camphor in the form of pills. One dram & an ounce given

as a powder is effective if the temperature of

the soporific property is useful in the treatment of

narcotics are astonishing. Counter irritation produced

by fomenting may aid if bed rest is continued. In the

treatment this part is applied. In this affection will be found beneficial, when there is great de-
pression of the powers of life. A decoction of Echinacea

in with camphor & small doses of Murial of Ammoni-

or with chlorate of potassium. If 1/2 drachm may be given.

When the stools are offensive the chlorates may be

employed with camphor in the form of Eau de Amorica.

After the evacuations as well as being morbid are

profuse a course of purgation or the bile powder.
Treat of Dysentery complicated with Worms—when the intestines are filled with the worms, and other ailments may be added to the diseases employed. In these cases, it may also be necessary every means should be used to render the air pure, or the strictest attention should be paid to cleanliness.

Section V

Treatment of Dysentery complicated with Worms among Europeans. Worms chiefly occur in children, or those of the habit of moist warm and unhealthy localities; but in the dark races they are common at all ages. With regard to the treatment of this complication Anthelmintics shd be employed, particularly those of a tonic and aperient nature as the bark of the Sumac or the Male fern or the jintle root, after which either oil or a mixture of it with turpentine may be administerd, or instead by the employment of Quinina. This complication seems sometimes to arise from a want of a due supply of salt with the food; when this is the case they shd be given in sufficient quantity with aromatics and warm spices, after which, nourishing diet and vegetable and mineral tonics shd be prescribed.

Section VI

Treatment of Dysentery complicated with Hemorrhage. In this complication much benefit will be derived...
Treatment of Dependent, complicated with Rheumatism

from local depilating from the pericarpium or scarum injected by the silk bath or gauzations after which a cooling ointment with Belladonna or some other anodyne will be found useful in assuring the body's sensibility. The gradual action of the phlegmata air which tends in such cases to increase the pain. In addition to these mild laxatives with anodyne depilating or mucilaginous substances given by the mouth or by injection. Pain suppressives will be found useful.

Section VII

Treatment of Dependent, complicated with Rheumatism

In the dependent, complicated with Rheumatism, general local bleeding or both may be necessary. The cavity secretion is to be attended to by the accumulation of local matter cleared of secretions, prevented by the occasional use of purgatives. In addition to these, the warm bath or belladonna depilating or anodyne such as camphor or eucalyptus, depilating or anodyne, such as camphor or eucalyptus or dressings with camphor may be used. The employment also of anodyne injection or opium sulphur in the dressing of warm water next the skin will be found very serviceable.
Treatment of Dysentery complicated with Fever.

In treating this complication we should first ascertain the cause by which it is produced. Endeavour as far as possible to remove or if that cannot be done, counteract them. For this purpose a properly regulated diet consisting of a new supply of vegetables, fresh meat, is necessary, as well as the use of those substances which are known to counteract the obstrutive condition of the system. Of these the most important is lime juice little in combination with small doses of opium has done good service. Various other substances have been proposed for the same purpose, to which a trial may be given when lime juice cannot be procured. For instance spirituous, small doses of nitro-muriatic acid with opium, vinegar, pickled cabbage, onions, barbiturate, &c. The earthy bath was also at one time in great vogue but in all probability the beneficial results were in part due to a change in the body caused either by the mineral of the patients.

When the symptoms and appearance of the evacuations indicate the retention of a greater substance of gas in the prime, the purgatives are necessary & those of a mild nature should be chosen, such as manna or rhubarb with lime juice and castor oil a compound powder of
Aromatic or warm spices will be added to the purgative. Especially among the Indians of warm climate, when the abdomen is tympanitic or tympano the discharge of blood considerably. If at the same time it is necessary to administer a purgative, a draught containing castor oil and tartrate and an injection of the same ingredients may be employed.

Astringent strengths are also useful, both by the mouth and internally to mention the infusion of Angelica, Nux vomica, or the emetic substance with aromatic oils or opiatum. If the patient is much weak and the hemorrhage from the bowel is great the carbonate of iron may be added with much advantage. If the disease already existed the calomel have been recommended in combination with soluble opium. Opium may be used as well as nitroprusside and in Macademia in Josephus which is the form of prussiate. A portion of nitroprusside has been applied to the external surface or used as a gentle when the gums are strongly deficient to those to relieve the local and induration of which are often present. The use of carbonic soda or the aromatic confection or tinctures in medicines with opium may be attended to with advantage. If however the vomiting arise from the presence in the stomach undigested food a gentle diarrhea may be given as the passage of the food in this state thru the bowels greatly aggravate the disease.

Ammonia has been found very serviceable in counteracting the nervous oppression that accompanies this disease.

Strong purgative strengths in other particular symptoms must be
Treat of Gynecomph with Mercury &c.

...patented by the same means as are employed in the other forms of the disease. Analgesics are beneficial when there is want of sleep, irritability of the intestinal canal.

...when this complication is produced by improper diet as was formerly too frequently the case in the Navy Branch and was generally the result of the change of food on returning to harbour in such circumstances, therefore, they should be anticipated guarded against and when it does occur means should be taken to abate it, as it tends greatly to increase the debility of the system. For this purpose, therefore, may be laid to the chalk mixture with aromatic spirits of the affix of the patient which be consulted in adjusting the quantity of food, but the diet should be rather moderate and increased according as the returning strength of the digestive organs enable them to bear it.

...the function of the liver is often affected in this disease, the secretion of bile being faulty, this hence may generally be remedied with the assistance of the other symptoms, the use of hepatica, if this does not occur mercurial preparations may be employed but not till the hepatica arehe be corrected.

Note. In Sarton when we have already found is a good diastatic and Employment of Mercury in simple depuration makes the following statement is a wish addressed to the use in the hepatica, that while a hepatica might be unfavorable to the retention of Mercury, yet an unreasonable afraid of this medicine has gone among in such cases. In my knowledge, Mercury have been pushed to the length of Pigaline, in the case of ague, when the same were contrived the analgesic...
Chapter IV

Treatment of Particular Symptoms

The patient's strength is often much exhausted by the want of sleep of slight or great irritability. To obviate these causes of opium or opiates may be requisite, while the found particularly useful when preceded by the warm tepid bath. Opium discharged of blood from the bowels occurring in acute dysentery may often be checked by several or local bleeding, but when they occur in the chronic form of the disease or have by frequent occurrence become the property of the system, antimony water or must be used, as Tech. of lead or opium given by the mouth or rectum, likewise. The mixture of iron in any bilious infusions, the turpentin-water draught & injection may also be used. One of the most constant and distressing symptoms is tenesmus; where stool, placed applied to the sacrum or perineum will afford relief. Small enemata injections of opium, hyoscyanine or belladonna will also prove useful. It will also be relieved by fomentation to the abdomen, put in water, dry' sitting over the steam of a hot-water bath while at stool. Excoriation often occurs about the anus in all the forms of this disease but particularly in that complicated with disease and the gums erysipelas with opium, the last consequence wos. At Thomson in the morning, off the Isle of France Oct. 1814, instanced this in many instances. In persons, by retain-ung at home, it is mercury combined with opium, regardless of a medicinal taint. Every on the Influence of EmpyemaM Permeative p. 211.
Treatment of Particular Symptoms - Protopurpurae - Bluish

of the Liver. In such cases anodyne fomentations are practiced, brandy
and Mace are immersed in lotions containing acrid sulpric and tlarks
and a ointment with Sulph of Linie or other mineral ointments will
be found beneficial.

Another disease is protopurpura for the relief of which local
applications from the Pottamum Sh be preceded by anfrequent
fomentations with Opium. The bowl Sh be carefully replaced,
while the Cost of apparent Sh be required. To remove the
purulent
craters by which the irritation in the bowels is produced and
least kept up, if there be added Opium hypogamy or other
antispasmodics to relieve the spasm of the mucous coat of the intestines,
2 belladonna plasters applied over the Pottamum is partly will assure
the same purpose. Fomentation of the boxel indicates the employment
of astringent lotions in infections; if blistering is suspected the blood
must be well. When it occurs in the chronic form of the disease,
along with ulceration infections of a solution of Biil of Vines prove
it is said very beneficial.

Abscess in the vicinity of the arm is another occurrence which do
never attention. As a rule in the first place we cannot prevent
the formation of matter by employing leeches unless after dis
current others. Wh these fail warm fomentations and
fomentations may be had recourse to till above all in early
the incision. It Sh be made to allow the matter to escape better
under 65 2ome the occurrence of purulent fomentations and the
sperms of then be employed, if the fact taken on an unhealthy
appearance, dilute disinfecting fluids may be used, the strength of
the patient supported by suitable means.
Ephedrine is commonly removed by adding carambolised
water to the lavations employed, or injecting a solution of
ephrine into the rectum. The symptoms occurring in the
urinary organs will be alleviated by phenacetin and acetylsalicylic
acid, with chloroform, amyl nitrite, to which may be added
sublimates, Lime juice, cream of tartar or some other similar substance
to render them more agreeable to the taste. Retention of urine
from pressor action about the neck of the bladder
is generally relieved by the use of Lime, of Muriatic Acid,
the salts of Bicarbonate of Soda along with Opium or Hyoscyamus
or Morphia may likewise be recommended. Retention of
urine and consequently occurs in the advanced stage of the
disease is of real timely recognised tendency to approach,
the distress of the patient. In such cases, local applications
followed by fomentation, the warm, or hot bath, or the injecition
already mentioned, will be found of great service.
In chronic or more in acute depending the inflammation
sometimes extends from the internal surface to the peritoneal
covering of the intestines. This to the ureum or Meckel's
this may occur either with or without previous ulceration,
and generally requires the most prompt and active treatment
a save the life of the patient; whenever the symptoms appear
with fomenting either general or local with according the strength.
Diet and Regimen

of the patient should be adopted, after which a full course of Colonel
combined with Quinine syrup may be given. This may be
followed up in a fashion by a daily amount of about 50 cc
Turpentine; the turpentine itself may also be applied to the
abdomen and repeated until the inflammation be subdued.

Chapter V

Diet and Regimen

In acute dysentery the diet must be strictly curtailed; ate
the lightest description of savourless being only used, the
blandst of blands or mucilages only used gruel, barley
beats or other genus gramineae all spiritsuous liquors and in
general be avoided altogether. It is sometimes necessary to allow
a small quantity of wine, particularly in the advanced
stages, in those who have been accustomed to the liberal
use of intoxicating liquors. Soups particularly of rich
containing much animal matter are apt to disagree
with the patient and produce acidity in the stomach.

The greatest caution must be observed in returning to the
use of solid food; the lightest and most easily digested the
obtain preference who persevered in even after the disease
has completely disappeared. Nothing is more likely to pro-
cure a relapse than any reversion to the diet by which
the employment of solid animal food before the morbid condi-
tion of the bowels has been perfectly cured and has pre-
gently induced a chronic form of the disease.
In chronic dyspepsia, the greatest attention must also be paid to
the diet of the patient. If the quantity, as well as the quality
of the food, be carefully regulated, for on the one hand
if more is eaten than the wants of the system require or
then the stomach can perfectly digest, the disease is
often greatly protracted; on the other hand, by employing an
adequate diestitv nutriment, the patient is less able to
resist the debilitating effects of the disease. The
more quickly it becomes
more quickly unbearable. The indiscriminate use of different
articles of food and drink, particularly various alimentary
liquors, not infrequently converts the chronic into the acute
form of the disease. Various articles of food have been proposed;
beef was much used by the ancients. Celsus recommends
the use of milk along with honey. It may also be given with
the gums and wine water; buttermilk is preferred by some
men by others. Buttermilk, however, as well as beef is apt to
cause acidity but it may be taken particularly if the patient
wants for it since whatever he fancies will tell on some
pointful result. Therefore, to be affid of alteration unless it is
obviously of an injurious nature.
Animal food is useful from being readily digested
and producing little excitement in the canal.
From affording little excitement the pulses as preparations
of peas meal are also very beneficial.
When the powers of the system are greatly exhausted it
may be necessary to give wine along with the food but except in those who have been in the habit of employing onions or spirits, liquors, tonic medicines are preferable. Care being taken not to commence their employment too soon.

In the acute as well as the chronic form of the disease, the patient should wear a flannel shirt next the skin, may be placed in bed between warm blankets; the bedpan should be used to prevent the risk of the patient becoming chilled by getting up to the night chair. Accidents of this kind are frequent in accidents of this kind. During the night, should be avoided.

It has been observed that the horizontal position elevates both the bowels, tenderness of the regions of the abdomen.

During convalescence too much attention cannot be paid to the food and clothing of the patient; the return to full diet cannot be too cautiously cold prevented by wearing a flannel bandage round the abdomen, which will also afford support to the intestines. Exposure to cold in any form, especially when in a state of prostration, may long back the disease. Change of air and travelling will promote the return to health. Lastly, various natural as well as the artificial natural waters have been recommended after frequent attacks or after the chronic disease.

Of the former we may mention those of Narrogale, Swindon (from Leeds) and the bowls after the age of Pigamon and alterations occasionally with the waters of Leeds or of Pelling.

Finalis