Thesis on Dysentery by John Guthrie
Dysentery was formerly a very common and serious disease in Britain, raging with greatest intensity in large and crowded cities. In London, towards the close of the seventeenth century, it prevailed to a fearful extent, proving fatal to thousands of the inhabitants annually. Nowadays, we have happily a mitigated form of the disease to deal with — in by-gone times, it accrued as an epidemic, having no particular season of the year for its onset — it is now generally confined to the autumn months, at all events, it is more prevalent then, than at other times.

What can be said of the disease in this country?
Unfortunately is not applicable to it in Tropical
climates - the malady there assumes a more
grave aspect than in temperate regions such as
ours. It is a terror to Europeans in India, and
no wonder, seeing the savages it commits on
their race - how fatal has it proved to our flot-
and armies in foreign service! Among Europeans
in these circumstances, the dieter often most display
its terrible power. Sir James McGrigor has
very appropriately termed it the "Scourge of
Armies," and the most fatal of all their diseases.
Three forms of Dysentery have been recognised
by some authors, viz. Simple Dysentery, or that
which prevails in temperate countries - Camp
Dysentery and Tropical Dysentery. As Camp
Dysentery differs from Simple, merely in aggravation
of the symptoms, I shall confine myself in the
following pages to the disease as occurring.
Pathology

That Dysentery depends on inflammation of the mucous membrane lining the large intestines is now a settled question - it is the mucous membrane only which is affected at the commencement but during the further progress of the disease, all the coats may become involved in the morbid process. In simple dysentery, we rarely find the inflammatory action extending along the whole course of the large bowels - it is very often confined to the lower part of that canal, viz. the rectum, sigmoid flexure and descending colon; however, cases do every now and then occur, where on dissection it has been found that the disease is not so limited, but that it has attacked every portion of the bowel from the caecum to the anus. Although an extension of the morbid action
is rare in the dysentery of this country, it is not
so in that form of the malady, especially the acute
which rages in hot climates. The small intestines
generally remain perfectly sound however
much the large bowel may have suffered, occasion-
ally, in bad cases of Tropical Dysentery a few
red patches about the lower part of the ileum have
been observed on dissection.

Like most other inflammatory complaints,
Dysentery may be acute or chronic, the latter may
supervene on the former, as often happens in the
simple dysentery of this country, or the disease
may be subacute and chronic from the com-
mencement, as in the Hepatic Dysentery of tro-
pical regions

The inflammation may be acute or asthenic
according to the constitution of the individual, in
our own dysentery, and that which prevails among
Robust Europeans lately arrived in warm climates, the inflammatory process is for the most part of the athenic type, whereas, in that form of the disease which attacks the natives, and those who have resided for a number of years in India, the inflammation is rather of the athenic type.

As a consequence of this perturbed vascular action, there is first effusion of serum, then fibrinous exudation is poured out on the mucous membrane, but afterwards between the other coats of the intestine also, so as to produce thickening of the walls - this exudation on the mucous surface does not become organized, as is the case with that thrown out on serous membranes, but it comes away in larger or smaller masses during the course of the disease, as will be explained hereafter.

The morbid process may be cut short at this stage by the proper means having been adopted.
employed, but very frequently, it goes on to ulceration and even sloughing of the mucous membrane. In many cases of tropical dysentery, a portion of intestine including all its coats has been found on dissection, a gangrenous mass - ulceration often begins in these spots, or patches of lymph, and gradually extends to the mucous membrane and the other tissues entering into the structure of the intestinal walls - the submucous follicles are frequently the seats of ulceration. These small glands, owing to excited vascular action, become engorged, enlarged and indurated, by and by, they burst, and an ulcerated surface remains when still entire and prominent, they resemble somewhat small poppy seeds. The ulcers vary much in size. Some are mere points, others are large and irregular in outline. These larger ulcerations are often a consequence of the rupture.
of a cluster of these small follicles. In the dysentery of this country, the ulceration seldom extends deep than the mucous membrane, which is much thickened and hypertrophied. In tropical dysentery, however, portions of the bowel are sometimes so attenuated by deep ulceration as to give way, and allow the contents to escape into the peritoneal cavity. Construction of one or more parts of the intestine is not an unusual occurrence in dysentery; it may arise in two ways: first, from sphincteric contraction of the circular fibres; and secondly, from hypertrophy of the coats of the bowel. Structure produced in the latter way is often permanent.

The external surface of the large intestines, as well as the internal shows evident marks of inflammation: it presents many different shades of colour. In some places, it is of a
leaden hue, in others, of a scarlet tinge, and between these, there is an endless variety. The walls are much thickened, and very easily lacerated with this hypertrophy of the coats, there is generally associated a diminution in the area of the canal. The Colon has lost its succulated appearance, owing to relaxation of the longitudinal bands of muscular fibres, and connected with this, there are often elongations and displacements of the bowel. The most frequent displacements, according to Mr. Annecley, are first a part of the sigmoid flexure descending into the pelvis, and lying in contact with the urinary bladder. Sometimes adhering to it. He thinks, that in this circumstance, there is a clew to the cause of derangement in the urinary functions which is observed in many cases - the second most common displacement.
is the descent of the transverse Colon.

There is generally more or less serous fluid effused into the abdominal Cavity, the omentum is often much altered in appearance and structure, it is shrivelled up, hard, firm and occasionally found adhering to portions of intestine.

It has been remarked, that in dysentery there is a want of fatty matter where it normally should be, and a deposition of it where it normally should not be. For instance, the omentum in some cases is found entirely destitute of fat, and those small peritoneal sacs the appendices epiploicae, attached to the large intestine, which in health are filled with fatty matter, have been observed in dysentery to have lost their proper contents, and been converted into gelatinous bodies. On the other hand, we meet with fat where it normally should not exist, as in the
Liver, and kidneys, also among muscular fibres, especially those of the heart. This absence of fat in the omentum and appendices ophloicae has been noticed to occur most frequently in those cases which are protracted and complicated with disease of the liver. The pancreas and spleen generally remain healthy - the same remark applies to the state of the kidneys in a large proportion of cases - the mesenteric glands are occasionally enlarged and indurated, especially those situated in that part of the mesentery to which the diseased bowel is attached. Unless in Hepatic Dyseury, the liver is but little if at all affected, in that form of the disease; however, it always suffers to a greater or less extent - in one case, it is atrophied; in another, hypertrophied, and in a third, suppuration has taken place.

Dr. Budd, in his book on "Diseases of the Liver"
has shown how abscess of that gland may follow a dysentery attack, he accounts for it, by the admission into the circulation of irritating ingrediens from the inflamed mucous membrane of the bowel; these are carried to the portal vein by its tributaries which bring back the blood from the intestines, this poisoned blood in the portal vein circulating through the liver excites inflammation in that organ, which terminates in the formation of small abscesses.

There is no important change in the composition of the blood in dysentery, probably, its phialns is increased, as in other inflammatory diseases.

It has been observed, that the urine is often of lower specific gravity than in health, and that there is a larger proportion of urea. Some are of opinion, that the dark colour of this fluid is partly owing to the presence of bile, that cannot however be
assigned as a cause of it in those cases where the liver is healthy.

Such disastrous results as above detailed seldom accompany the dysentery of this country, in its more comparatively mitigated form, still we may suppose them occurring, but to a less extent, in the worst cases of simple dysentery.

I have stated at the beginning of this chapter, that the disease depends on inflammation; it would perhaps be more correct to say, on the inflammatory process, as true inflammation is not always reached, there being sometimes mere by congestion of the mucous membrane.

Dysentery may terminate 1. in resolution or health. 2. in other diseases, as Chronic dys.

Dysentery, ulcer, general, or local, and suppuration of the hepatic tissue. 3. in death.
Dysentery of Temperate Countries.

This variety of the disease is met with most frequently during the autumn months, it may appear in so mild a form as to require little or no medical interference, the majority of cases, however, are not of so trivial a character, but such as to demand prompt active treatment.

The following symptoms may be reckoned as the principal diagnostic marks of the disease in its acute stage. There is severe pain in the lower part of the abdomen, occupying at first the hypogastric and left iliac regions as the sigmoid pleure and rectum are frequently the portions of bowel primarily affected, however, as the morbid action progresses along the canal, the pain becomes more general, ascending
towards the epigastrium — there is a degree of
tenderness over the inflamed parts, so that the
patient winces under the slightest pressure.
the stomach begins to sympathize, this giving rise
to nausea and vomiting — the tongue, excepting the
papilla, is covered with a whitish fur, resembling
somewhat the appearance of that organ in Scar.
calms, after a time, the fur wears off, and the
tongue becomes red, smooth, and glistening, this
change is observed in some cases though not in all.
the faucæ are sometimes of a deeper colour than
is consistent with a healthy condition of those parts.
There is distressing tenesmus, which adds much
to the patient's discomfort, he feels as if there
was something to be expelled from the bowels,
and yet nothing but small quantities of mucus
come away — when tenesmus is very severe, the rectum
will generally be found much affected.
The urine is scanty, and high-coloured. There is often pain and considerable difficulty in passing it, owing to sympathy between the bladder and rectum. In addition to these local symptoms of the disease, there is febrile excitement; the pulse ranging from ninety to one hundred and twenty beats in the minute; this change in the circulatory system may precede the local signs, or as not infrequently happens, fever does not appear until the above symptoms have declared themselves. At first, the pulse is strong and hard, as in other inflammatory disorders, but no long time elapses until it changes its character, and becomes the small, weak abdominal pulse. There is great prostration of strength, loss of appetite, headache, and much thirst. The individual continually asks for drinks. The skin is hot and dry - the face flushed, and an oppression
of suffering and anxiety is depicted in his countenance — he passes sleepless disturbed nights, if sleep does steal over him, it is only for a short time, he awakes unrefreshed, having been too much tormented by frightful dreams — All these depressing influences make him low-spirited and desponding.

The griping pains and tenesmus are subject to remissions and exacerbations, both being increased after each attempt to evacuate the bowels. It has been generally remarked, that the pain and other symptoms are aggravated at certain periods of the day, it is not unusual to find them so, for two or three hours in the afternoon.

When the disease is confined to the rectum and descending Colon, the stools at first present an unnatural appearance, being composed chiefly of mucus in a fluid state, or imperfectly
jelled - the usual smell is absent, there being
no admixture of fecal matter. This last circum-
stance is a distinguishing point between dys-
entery and diarrhea - by and by, the evacuations
become tinged, or streaked with blood, and mem-
branous shreds or filaments resembling skin are
spotted. The stools may be of a mucous-sanguin-
lent character for a longer or shorter period, accord-
ing to the intensity of the morbid process.

But in many cases, though not in all, long re-
tained, indurated balls of fecal matter termed
Scyballese are expelled from time to time during
the continuance of the bloody stools.

It is a subject of dispute, whether or not
Scyballese are present in every case of dysentery
and if they form an essential element of the
disease. Some affirm that these cannot be
dysentery, unless these hardened balls are present.
and that it cannot be cured until they are removed. Others adhere to the opinion, that dysentery may occur independently of them, and that they have nothing to do with the formation of the disease. The latter party do not deny the existence of scybala in dysentery, but believe, that when found, they should be considered as a consequence of the disease, not the cause, for it has been observed in dissections of persons who have died of the complaint, that the scybala were lodged in the sacculi of a healthy part of the colon; from this, it has been inferred, that their formation was owing to the accumulation of cement from inactivity of the diseased bowel to evacuate itself. If the writer may be allowed to give his opinion, he is inclined to think, that in the larger number of cases where scybala occur, they are formed in the manner detailed
above, and therefore, should not be looked on as a cause of the disease—doubtless, hand, unhealthy faces swept up in the color produce irritation in the neighbouring parts, which may advance to inflammation, if the cause be not removed.

Not infrequently, the discharged mucus changes from its reddish colour to a mixture of green, black, and red—when this takes place, although the smell pungent matter is wanting, there is one of a very pestilential character substituted. The period, during which the patient continues to pass these mucous, pungent, vacillated stools is not the same in all cases—in some, the space of time may be counted by hours, in others, by days. Sooner or later, however, if the case goes on favorably, the evacuations change in appearance & character—large quantities of dark, coloured fecal matter,
of a very offensive odor, and mixed with bloody mucus, are expelled. The quantity of blood discharged varies, according to the intensity of the inflammation. The evacuations is generally in a liquid state, with the exception of dysentery which if present are now got rid of. Such defecations continue at intervals for several days, the quantity of blood and mucus gradually diminishing until at last, the stools regain their normal color and consistency. When this phenomenon has occurred, all the symptoms undergo a change for the better, and the individual expresses himself much relieved.

It is necessary, that great attention be paid to diet and regimen during convalescence, lest from the tender state of the bowels, the evacuation again become tinged with blood, which will no doubt cause recurrence of the pain and tenesmus.
It has been observed, in cases where the disease originated in, or attacked the transverse Colon at the same time, as the inferior parts of that Canal, that the stools are opulentitious from the very commencement.

Simple dysentery, in its milder forms, resembles very closely a severe attack of diarrhoea; there are griping pains in the bowels, nausea, furled tongue, slight tenesmus, numerous fluid stools occasionally streaked with blood, thready but trifling when compared with that attending the acute form of the disease. The skin is hot, but the pulse little if at all affected. Such cases readily yield to the appropriate means remedies in most instances, but sometimes diarrhoea is the precursor of the more serious affection.

Simple dysentery may prove fatal in a few
days, it is rare however to find it occurring with such intensity - the period of its duration varies in different cases - when acute, it seldom continues longer than ten days or two weeks at best, but it may lapse into the chronic stage, and be protracted for months, occasionally terminating in the death of the individual, his strength having been exhausted by the numerous discharges acting as a drain on his system.

The chronic form is not so apt to follow the acute debauching of temperature as that of tropical regions, accordingly, most of the chronic cases are among those who have been the subjects of acute debauchery while abroad.

- Depaenetry of Tropical Climates.

This is divided by most authors into two distinct varieties – the one consisting in acute
inflammation of the mucous membrane of the large intestines chiefly, and termed "Colonitis" the other is more chronic in its nature, and often connected with disarrangement of the biliary functions, hence designated "Hepatic Dyentery." Some have given a more minute classification. Mr. Barnfield, for instance, makes out three principal forms of tropical dyentery, acute, chronic and scoliotic. He subdivides the acute into "Dyenteria Mitis," "Dyenteria General," and "Dyenteria Inflammatoria." He also specifies four or five varieties of the chronic, but as all these are merely modifications of Colonitis, or Hepatic Dyentery, it will be sufficient in the present essay to consider them only Colonitis.

This form of the disease generally attacks those who are of a robust and phlegmatic constitution.
therefore, young and healthy Europeans on their
arrival in warm climates are very liable to fall
victims to it.

Colitis is rendered exceedingly dangerous
by the incipient manner in which it progresses.
the disease may have advanced so far, before
any very urgent symptoms have been observed, as to
preclude any benefit from medical assistance.

Sir George Ballington states in his treatise on
alcohol, that it is not an uncommon thing
amongst the soldiers in India, when they are threaten-
ed with bowel complaint, to go to excess in spirits,
leaving, thinking that a panacea for all such
affections, and perhaps, he adds, to dispel the
attendant languor, and depression of spirits. In
many cases, this is bad recourse to, when the symptom
first attract attention, instead of applying for
medical relief.
The disease, at its commencement sometimes simulates diarrhoea which may have succeeded a previously constipated state of the bowels. This, exciting little or no suspicion, especially among the lower ranks, is allowed to go on unchecked and unvented, until it gradually takes into dysentery. However, it not unfrequently happens, that the diarrhoea continues, even when measures are employed to stop it. At other times, dysenteric symptoms are present from the first. If the disease is of a diarrheal nature at the beginning, the evacuations are not particularly scanty, but rather copious, numerous, and of a fluid consistency, occasionally streaked with blood, but having no great fetor. There are slight pains in the bowels, with a little tenesmus. In this stage the pulse is seldom affected. The tongue is not altered in appearance. The appetite gradually becomes impaired, and thirst
begins to be felt. The patient is already debilitated, and depressed in spirits. If the disease has not been subdued in this stage, dysenteric symptoms rapidly become manifest. The stools are now more frequent, varying from ten to forty in twenty-four hours. They are leprous, and composed chiefly of mucous and blood, resembling somewhat water in which raw beef has been washed. As yet, there may be little or no pain, except when an effort is made to evacuate the bowels, but as the disease advances, pain becomes very severe; it is now constant, and seated in the hypogastrum, sometimes extending to both iliac regions and along the whole course of the colon, proving that a greater part, or the entire length of the large intestine is involved in the morbid action. There is a feeling of fulness and tension over the abdomen generally, and great tenderness on pressure.
Mr. Annesley affirms, that in many cases, the colon, colon and rectum may be highly inflamed, and even ulcerated in some places, without the patient feeling pain, and that he experiences but slight soreness in the rectum being applied.

Tenesmus now becomes much more troublesome than it was in the earlier part of the disease. The tongue is furred, or as has been occasionally observed, it has a smooth, red, and flabby appearance. The patient is unable to keep it still when protruded. His mouth is parched, and unhealthy viscid mucus collects about the teeth. The thirst he endures is extreme, remaining unabated however much drink may be taken, cold water is preferred to all other liquids. He has no desire for food, the appetite being entirely gone. The skin is eitherhot and dry, or covered with a profuse perspiration. There may be suffocation.
of urine, or it may be voided frequently, and in small quantities, the patient complaining of a burning pain as it passes along the urethra, it is generally of a dark colour. The character of the pulse varies in different cases; in some, it is but little altered from its state in health, whilst there is so much constitutional derangement in others, there is fever. Dr. J. Ballingall is of opinion, that the pulse is far from being a true criterion of the extent of disease in the bowel complaints of India. When there is mere acceleration of the pulse, the case is not so desperate as when it becomes full and bounding. This last phenomenon having supervened, the disease in general terminates fatally.

As the malady advances, the stools become more and more frequent, blood is now dis- charged in large quantities, either alone or mixed
with other matters, when项目的in a fluid state
and contaminated with fecal matter or mucus,
it is conjectured, that it proceeds from the vessels
of the section, and lower part of the descending
colon. When expelled in clots along with feculent
or other discharges, the idea is, that it flows from
the vessels in the upper part of the colon, and
even from those of the cecum. The blood is
generally more of a venous, than arterial tincture.
The evacuations have a very fetid odor, from the
vomited products which enter into their composition.
Frequently, in the latter stages of the disease, much
feculent matter is evident in the discharges.
Besides these ingredients, there are occasionally
clots of an albuminous substance, bile, and
shreds of membrane varying in size from mere
filaments to considerable patches, or hollow
cylinders, being perfect casts of portions of the tongue.
are discharged — the transformation of the exudation into membrane very often happens in inflammation of the intestines, though a mucous surface.

In consequence of the comminution of so many different matters, the stools are of a variegated colour. Part of the mucous membrane may be detached by sloughing and extruded. Such an occurrence is not unusual in the worst cases. Tenesmus grows more and more urgent; it is sometimes urgent, as to cause protrusion of the lower part of the gut.

While all this is going on, the patient mind is anxious and depressed; his body is enfeebled to an extreme degree, and he feels, as if his end was fast approaching. "He enunciates the greatest reluctance to part with his medical attendant although fully sensible how unavailing the efforts of medicine are likely to prove."

The stools are now passed involuntarily from the
epsemotic action of the bowels. The pulse, whatever
had been its condition previously, now sinks
capidly, becoming small and quick. Hiccups
and vomiting are not unusual during the final
stage towards the termination of the disease;
delirium generally supervenes, pain becomes
less severe. Sometimes it is altogether absent - the
functions of the intestines cease, owing to the extreme
weakness of the patient - his features, sharpen.
His skin is covered with a clammy sweat, his
body grows cold and emits a peculiar cadaverous
odor. In this condition he remains until
death closes the scene... Such is, alas, too often
the course of acute tropical dysentery, especially
of those cases in which the primary symptoms
have been disregarded.

Are Scyballe present in this form of dysentery?
Most writers on the subject tell us that they
seldom is never occur - there is often much and irritating fecal matter lodged in the colon, which must be removed before there is any mitigation of the symptoms - in many cases, instant relief is obtained when the bowels are freed of their unhealthy contents. The pain is lessened, and the patient's strength and spirits much improved. In acute tropical dysentery, the pain and other symptoms are subject to remissions - there are nocturnal exacerbations and maternal ameliorations.

The duration of the disease varies, according to its severity, and the constitution of the individual. It may, and often does prove fatal in a week. At other times, it is protracted for two or three weeks. It seldom continues longer without a change either for better or worse having taken place.

The caecum, colon, rectum are the parts generally affected in this variety of dysentery - the small
intestines and other viscera being but rarely found diseased.

Hepatic Dysentery

This may be of an acute nature, but more frequently, it is subacute and chronic. Those, who have resided in warm climates for a considerable period, are peculiarly predisposed to this complaint from the effects of a high temperature on their constitutions, they are not so liable to acute inflammatory affections.

In hepatic dysentery, there is always either functional or organic disease of the liver, this may have existed prior to the dysenteric seizure, or been established in consequence of it. It has been remarked, that those, who suffer from derangement of the biliary secretion, are very prone to attacks of this form of dysentery. There is often considerable difficulty in determining whether the
Hepatic disease preceded the dysentery or vice versa.
Some are of opinion, that in the more acute form of this disease, there is merely a vitiated condition of the biliary secretion, while, in the more chronic sub-acute forms, there is abscess and other structure changes of the liver.

Hepatic dysentery usually commences with griping pains in the umbilical region, not constant, but occurring at short intervals; these fits of griping are succeeded by a desire to evacuate the bowels. The stools are generally copious, and present an unhealthy appearance; their colour and consistency are greatly altered, and they proffer a very offensive smell. The colour varies so much, that no two stools may be similar in that respect; it may be black or nearly so, brownish green, yellow; clay coloured, &c; all these different hues may be mixed up in the same discharge;
they may appear in succession. The defecation are thin and watery, of a frothy nature, from the large quantity of gases pressed with them - there is common ly a slight admixture of blood in the stools. The act of defecation is attended with a feeling of scalding about the anus - unless, in the more acute cases, there is little or no tenesmus. As the disease progresses, the griping pains become more constant, and the evacuations more numerous. The patient, from the first, is troubled with nausea. His appetite is gone. He complains of a violent thirst, and has a great desire for cold fluids. His tongue is dry and covered with a film of a yellowish colour. There is a bad taste in his mouth. His pulse is accelerated, especially towards night, and his skin hot and dry. He passes urine with difficulty and in small quantities at a time. It is generally thick and a thickish colour.
Such are the usual symptoms for the first two or three days; after that period has expired, certain changes occur. The stools become of a whitish colour, and are now almost entirely free from blood, but containing portions of undigested food. The griping continues, and the patient complains of a severe pain in the epigastrium, and right hypochondriac region, extending upwards towards the shoulder; this symptom is regarded as a sure proof of the liver having become affected. In the last cases, there is merely a sense of weight and uneasiness over the stomach. Nausea grows worse and worse until vomiting is produced, which is often accompanied with hiccup. As might be expected, there is no relish for food, whilst thirst becomes more and more urgent. Sometimes, at this stage, the tongue undergoes a change; it parts with its crust, and assumes a dry, clean,
smooth aspect. Under all these depressing influences
the individual is debilitated both in body and
mind - his pulse is weak and thready, but un-
reduced in frequency - the skin is of a dirty
pallid hue, and covered with greasy perspiration
occasionally it is dry - this colour of the in-
tegument together with the pain felt in the
right hypochondrium is considered as pathog-
monic of the liver having suffered.

This disease 'modified to a certain extent by
peculiarities of constitution, by the season of the
year, the local situation of the place and other
attendant circumstances' may continue for
weeks, and even months, reducing the victim
to a state of extreme emaciation and debility,
but after all terminating favorably. It often
proves fatal from the formation of abscesses
in the liver, or from ulceration and mortification.
of the diseased bowel.
These two forms of flux may coexist in the
same individual, or they may occur alternate-
ly, rendering the case more complicated
and difficult to treat.

**Etiology**

This topic has given rise to numerous discussions
and controversies among Authors, and even
yet, there are many points on which they
differ widely.

In the following remarks, I shall endeavor
to enumerate a few of the most important facts
that have been ascertained by the investigation
of those who have had opportunities of study-
ing the subject.

There are many circumstances which predispo-
Unwary Europeans in hot climates to dysentery, indeed, many of them are soon on their arrival in India. Having acquired the predisposition during their passage out, and more particularly those who have travelled by sea. While on board a ship, they have abundance of food and little exercise which soon induces constipation—periculat matter lodging in the alimentary canal is prone to excite irritation there, which will advance to inflammation if the cause is allowed to remain. This sedentary life with plenty of food is often of itself sufficient to bring on the disease, but in many instances, it is assisted by the intemperate use of ardent spirits.

Although those who have been addicted to high living on their way out are more liable to dysentery as they approach warm climates.
than those who have lived temporarily and
paid strict attention to their bowels; still, many
of the latter class are attacked shortly after their
arrival. It is a circumstance much to be la-
mented, that troops are very apt to be affected
with this malady, and especially when en-
gaged in actual service. It is not difficult
to explain why it should be. Men so situated
are exposed to all the vicissitudes of weather
and temperature - the scorching heat of the day
is often succeeded by cold, chilly nights with
heavy dew - during the day, they follow their
avocations under the burning rays of a tropical
Sun - their food is frequently scanty, and of
inferior quality, many of them go to excess in
intoxicating liquors - their bodies are fatigued,
and it may be, their spirits depressed by disaster
or defeat - at night, they bivouack in the open
air, and seek repose on the cold damp ground. Such a sudden transition of temperature cannot fail to have a very injurious effect on their constitution. The checking of the perspiration in such cases operates powerfully in the production of the disease, in proof of this, I take the liberty of making the following quotation from Mr. Baumber's work: "The copious perspiration of the newly arrived European becomes accumulated when he is sitting or walking on the lower part of the shirt, more especially about that part of the abdomen where the wrist-band of the small clothes or pantaloons presses against it, the tight or close application of which occasions an increase of heat and of perspiration at this particular part. During the day, and intercepts the exhalation as it flows down the body; hence, if he should lie down in this state, cold will be induced in a particular part.
of the abdomen, by the exhalation of the expired air from the wet linen in contact with it; perspiration before profuse, will be now effectually suppressed and its injurious consequences be felt by the chyleotic viscera.

Those who inhabit low and marshy districts are very obnoxious to dysenteric attacks, this very probably arises from the presence of miasmata resulting from the putrefaction of vegetable and animal remains. Most writers on this subject are agreed, that putrid emanations are a fertile source of the disease, the suppression strengthened by the fact, that dysentery is endemic in certain marshy localities.

As regards the influence of weather and temperature, it has been observed, that the disease is most common at the commencement, during and immediately after heavy rains.
Sudden changes of temperature, especially when combined with a moist state of the atmosphere, play an important part in the production of dysentery. During hot and dry weather, the malady does not prevail to any great extent, and then it is generally complicated with disease of the liver. There is no greater predisposing cause than a disordered state of the alimentary canal together with derangement of the biliary apparatus.

The exciting causes are insufficient clothing, exposure to wet and cold after extreme heat, certain articles of diet, such as the flesh of unhealthy animals, fresh pork, and belched by some to excite the disease. In toxi-cating liquors are a very common and powerful cause, as they generally contain all sorts of acid substances - the habitual
use of stagnant water, such as that taken from marshes - ripe fruits, ripe fruits taken in
peace; this point however is not satisfactorily
settled. Sir John Franklin remarked, that dysentery
prevailed, when no fruit was eaten, and that
it disappeared on the ripening of the grapes
which, he adds, were so abundant as to be used
by all classes. Cullen was of opinion that in
the first stage of dysentery, the sweet and sub-
acid fruits are allowable, and even proper.

The prevalence of the disease in this country,
during the summer and autumn months,
favors the notion that the consumption of
large quantities of vegetables and fruits may
act as a cause. There is no doubt, that such
articles, when used immoderately, are a source
of derangement and irritation in the intesti-
tinal canal.
It is thought by some, that the moon influences the production of dysentery, it may do so indirectly, as vicissitudes in the weather and temperature generally accompany the changes of that luminary, it cannot be considered else than a remote cause.

Other diseases may lead to dysentery, as fevers, which are usually attended with more or less inflammation of the lining membrane of the intestines. Dysentery has been observed to supervene on a morbid condition of the liver and pancreas. Rheumatism appears to predispose the system to dysentery, as it has been remarked, that the latter is not uncommonly a sequel of the former. Among the natives, and old residents in warm climates, the healing of chronic ulcers, especially when situated in the inferior extremities, has
been followed by an attack of dysentery. Cases are occasionally met with wherein it has been caused by the suppression, or sudden disappearance of a cutaneous eruption.

Males are more liable to be affected with dysentery than females. This may be accounted for partly, by the former being more exposed to the exciting causes. It is believed, that females are in a measure protected by the occurrence of the menstrual flow. Youth are more subject to this disease than men who have attained the middle period of life.

There formerly existed a great diversity of opinion, as to the contagion, or non-contagion of dysentery; it is now however generally supposed, that the disease is not propagated by contagion, either in this country or in warm climates. A few are still inclined
to think, that there is one form of dysentery contagious, viz. that accompanying continued fever, but in such cases, the fever alone is contagious, of which dysentery forms but a symptom.

**Treatment**

The great point to be attained in the treatment of dysentery is to allay the inflammatory action, before it has run on to ulceration or destruction of the mucous membrane. To accomplish this, bloodletting should be the first means employed, so as to relieve the over-loaded mercurial vessels. If bleeding is to be had recourse to at all in dysentery, it should be, during the inflammatory stage, and at its very commencement, if possible. When ulceration has begun, it does
Harm rather than good.

In the acute uncomplicated disease of warm climates, both general and local bleeding must be practised. The first, to relieve more especially the system at large. The second, to unload more immediately the congested vessels of the mucous membrane. In the dysenteries of this country, usually, it is not necessary to bleed to such an extent. Although we sometimes meet with cases which require general bloodletting, the majority are got under by local abstraction of blood. The latter may be practised on the abdominal walls along the track of the inflamed bowel, but much more efficaciously by leeches applied to the extremity of the rectum.

After the employment of bloodletting, general, local, or both as the case may demand, the pain and tension of abdomen will be found
much abated, the quantity of blood in the stools diminished, and the pulse less quick and full than before – the state of the pulse however in all cases is not such as apparently to warrant the use of the lancet, it may be weak and thready at the outset, this, nevertheless, according to experienced practitioners, is not to deter us from bloodletting, if there are other symptoms present which show the necessity of such a procedure. they say, that when there is great pain, heat and tension of abdomen with tenacious and frequent bloody stool, have recourse to venesection whatever be the condition of the pulse. In addition to the other good effects of bloodletting, it lessens the spasmotic action of the intestines, owing to the relaxed state of muscular tissue following loss of blood.

After the inflammatory action has in a measure
been subdued by bleeding, other antidilatations: remedies are to be employed, and first, those which excite the function of the skin, such as Ipecacuan and Antimony - it has been found, that these Antimonials act more readily and certainly, when combined with Opium, moreover, the opium is useful in cheering pain, and soothing the general system, also in preventing nausea, becoming too intense, accordingly. Dover’s Powder is held in high repute, and deservedly so, as one of the best auxiliaries to bloodletting in dysentery. Antimonial Wine, with Laudanum, or Solution of Morphia, also the Antimonial Powder, with solid Opium in the form of pills were formerly much used. the preparations of Ipecacuan with Opium, have of late years superseded those of Antimony. Many attacks of dysentery have been cut short, by repeated doses of Dover’s Powder preceded
of course by bloodletting. It is generally administered in doses of ten, twelve or fifteen grains, at intervals of an hour or so, until profuse sweating is established. Before Dover's powder came to be so much used, the Theacuan and Opium were given at separate times, first, the patient swallowed two or three grains of solid Opium, which was followed by a dose of the Infusion of Theacuan. This mode of administering the drug is not yet obsolete among practitioners in India; they resort to it in very bad cases, so as to give relief as soon as possible. When the stomach is irritable, Antimony and Opium in the form of a pill have been found preferable to Dover's powder. Theacuan and Antimony operate as antiphlogistics in two ways: first, by determining towards the skin, and secondly, by their narcætating properties, they prevent the patient eating, and thus allow the bowels to be at rest.
as far as indigestion and colic are concerned in disturbing them.
Under this head may be classed the warm-bath, heated drinks, and ointments applied to the abdomen.
These means greatly assist in promoting the specific action of the above medicines. Besides, the
warm bath is useful in allaying pain, procuring
sleep, diminishing the frequency of the stools, and
in obtaining a more copious discharge of urine.

Purgatives. In former times, when constipation was
considered to depend on the accumulation of hardened
feculent matter in the large bowel, great
importance was attached to this class of remedies,
as much so, that a powerful purge was the first
thing thought of in the treatment. That practice
is now almost exploded, the pathology of the
disease being better understood, than it was then.
At present, the general opinion is that strong drastic
purges should never be employed, as the inflamed
and irritable, mucus membrane is but ill able to bear such rough treatment - milder measures will be found sufficient to remove any accumulated matter, and to keep the bowels clear, after the inflammatory action has somewhat abated.

If constipation has preceded the dysenteric attack, and along with it, there are proofs of derangement in the alimentary canal, it is good practice, to administer a cathartic early, but when the bowels have been regular, or diarrhoea ejected previously, there is no necessity for giving aperients until the patient has been bled, and put under the action of sudorifics. In no case should active purgation be employed, as it tends to aggravate the symptoms, by irritating the mucous membrane and causing an increase of pain and tenesmus with more copious discharges of bloody mucus - mild, warming cathartics are in all respects preferable, for besides
being equally efficient, they do not produce the same amount of uneasiness and griping by their operation.

The plan now most commonly adopted is to give occasionally a mild aperient, as castor oil, so as to prevent any morbid retention of feces to render the evacuations more easy in its action, a little laudanum should be added. In chronic dysentery, laudanum and opium are exhibited alternately with good effect. Sulphate of Magnesia has been found to answer very well as a mild aperient in dysentery.

Infusion of Senna is recommended by some, notwithstanding that its action is often attended with griping, this however may be counteracted by the addition of Opium. Cullen used Tartar Emetic in dysentery with a view towards its action on the bowels, rather than on the skin.

These remarks on purgatives refer to their use in simple dysentery and colics.
In Hepatic Dysentery, aperients must be employed more liberally; they should be repeated from time to time during the whole course of the disease, from its commencement to its termination. They are beneficial, first, in ridding the intestines of any putrid or undigested food that may have lodged there; secondly, in exciting the liver to increased activity, when the evacuations are of the white colour peculiar to the advanced stages of the disease.

As the inflammatory action is generally sub-acute, more stimulating aperients may be administered. Infusion of Senna, Rhubarb with or without Colomel are very suitable.

Enemas have long enjoyed a high place as excellent remedies in the treatment of dysentery, whether acute or chronic, and undoubtedly much benefit is obtained from them. The common anodyne elysiter of starch and opium is the one most used.
small quantities only should be thrown up at a time, lest the irritable bowel expel it. By way of fomentation, it is not a bad plan to inject large quantities of warm milk and water with considerable force, so as to reach the diseased part of the bowel, although this is retained but for a short period, the patient often prepares himself much relieved by it. After a clyster has been given, the pain and tenesmus are less distressing, the stools neither as frequent, nor so highly charged with blood as before. At sometimes happens, that tenesmus is so great as not to allow an enema pipe to pass into the rectum, in such a case, two or three grains of solid opium inserted beyond the sphincter will often afford great relief.

When profuse hemorrhage from the bowels continues after repeated bloodletting, astringent
injections are sometimes resorted to, as a means of arresting it, and not without success. Laxative
remedies were formerly employed to assist the aperient medicines taken by the mouth, but as
that is unnecessary, the practice has now fallen
into comparative disuse.

Mercury. In regard to the exhibition of this drug
as a curative agent in the treatment of dysentery,
there is, or was, to be, a great discrepancy of opinion
among medical men. It has been found to be
most serviceable, when liver complaint goes along
with the bowel affection, as in hepatic dysentery.
However, it has been very much employed in the
treatment of Colitis, either alone, or in combination
with some other medicine. In Colitis, some
give Mercury in large doses, as a scumble of Calomel,
repeated two or three times a day — others ad-
minister it in small doses, as three or four grains.
at short intervals. Whatever be the size of the dose, the medicine is continued until its physiological effects are produced, which, as we are informed, are quickly followed by an alleviation of all the distressing symptoms. Recent trials of this remedy have proved, that large doses are not so apt to irritate the intestines, as smaller ones are. A little opium is often applied to the Mercury seas to obviate this tendency. The anti-mercurialists tell us, that the use of Mercury in Salivation in Boronitis is always followed by an aggravation of the pain and tenderness, and by increased frequency of bloody stools; we may easily conceive how this should happen, as phlegmism is generally attended with more or less inflammatory fever. Most practitioners are now convinced, that Mercury may be productive of good in dysentery without Salivation being induced. I mean in
acute uncomplicated dysentery.

If the sedative action of this medicine is desired, it should be given in large doses, either with or without opium. Salmel and Terecuan are employed by some, so that along with the action of the former, there may be determination towards the surface. As a Cathartic, Mercury is more certain, when united with other Cathartics as shrubake. In the dysentery of this country, it is rarely necessary to have recourse to mercurials. Sometimes, however, their administration is beneficial, as when engorgement of the portal system is suspected.

If there are doubts as to the utility of Mercury in simple dysentery and Colonitis, most certainly, none exist as to the great benefit to be derived from it in the treatment of hepatic dysentery, where there is always more or less
derangement of the bilious functions. It is our duty that our chief dependence is placed for the cure of this form of the disease— at the very commencement, this remedy should be given, either alone, or in combination with opium. Provided mercury is taken into the system, it matters little whether in the form of pill, or powder. This treatment should be continued, until slight mercurialism is established; even then, it should not be left off, unless the functions of the liver are restored, and the stools of a healthy appearance.

As the stomach often becomes irritable in the advanced stage of this disease, it may be necessary to stop the exhibition of mercury by the mouth, and have recourse to rubbing in mercurial ointments, as often as may be deemed expedient.

Colonel or blue pill whenever it may be, if not of itself sufficient to regulate the bowels, mild
Laxatives should be given occasionally, so as to prevent constipation.

Emetics were formerly much used in the treatment of dysentery, though nowadays they are seldom employed. It is believed that, by their operation, they aggravate rather than relieve the disease.

Blisters & Liniments. The application of these means is often productive of the best results when, after bleeding, the pain continues severe. It is proper to apply one or other of these remedies over that portion of the bowel in which pain is felt. In cases where the kidneys are unsound, and there is already suppression of urine, emetics repeated frequently if necessary, are for obvious reasons preferable to blisters.

In the hope of giving a more connected view of the treatment of dysentery, I shall shortly recapitulate the different remedies employed in
the different forms of the disease.
In acute Dysentery, the practice adopted must be
founded on antiphlogistic principles - without
bloodletting, all the other means are next to useless
in a large proportion of cases. In Colitis, the
most successful treatment has been, first, blood
letting, then purgatives, the warm-bath, hot
fomentations to the abdomen, and the occasional
use of gentle aperients. In the acute dysentery
of this country, the same remedies are to be em-
ployed, but in a milder degree.

In Hepatic Dysentery, mercury is a sovereign
medicine. mild laxatives should be given when
required, and, if at any time during the course
of the disease, the skin becomes hot and dry,
on account of febrile Hystenm. the warm bath
with two or three doses of Dover's powder will
be found to do much good - to allay that
irritability of the stomach, which is often present, opiates are very useful. Perhaps, that modern remedy, pyrogallic spirit, might answer the same end - when this state of the stomach depends on the liver affection, which is very often does, the repeated application of blisters to the epigastrium is particularly beneficial.

When acute dyspepsia has passed into the chronic and ulcerative stage, notwithstanding all our efforts to prevent such an occurrence, the treatment must be changed accordingly. Our chief reliance now is on the sedative astringent medicines, of which there is a great variety. Vegetable astringents with opium are very suitable; those most extensively used are Catechu, Tino and Logwood. Tino is generally thought inferior to Catechu, but when combined with opium, it answers extremely well.
Catechu as well as Rhus when employed in chronic dysentery should be exhibited with opium, and advantageously also, with tonics and aromatics. I have seen much benefit accrue from the use of the following dose:

P. Tinct. Aq. Ammon. 3 fl
Vini Speci.
Tinct. Rhei d. 3 fl
Aq ae Cinnamoni 3 v
Tinct. Vini vel Catechu 3 fl

This may be repeated three or four times a day or oftener, as circumstances require. The addition of Cercecum is for the purpose of keeping up slight diaphoresis. Pills of Catechu, opium, and Cercecum are also very efficacious here. However, Catechu is preferable to Rhus, as it is not so apt to remain in the stomach undissolved.

A decoction of Logwood constitutes a very good
Tonic acting on digestive. Acetate of lead has of late years acquired great reputation as a means of care in chronic dyspepsy; it should be conjoined with opium, as in the "Pilula Alumbi Acetata of the Edinburgh Pharmacopoeia," or in the form of a draught as below:

Rx Acetum Alumbi gtt. ad gtt.
Acetum Zui
Aquae Distillatae gtt.
Fixit: Aquae gtt. B2

When irritability of the stomach exists, the pill is to be preferred to the draught, for this reason that in consequence of its smaller bulk, it has a better chance of being retained. The common chalk (mixture is also employed as a remedial measure in chronic dyspepsy, but it is not so suitable for this affection, as for simple diaphore.

Much benefit may also be obtained from the
occasional administration of anodyne objects - they tend to soothe the irritated mucous membrane, and promote the healing of the ulcer. If at any time, during the course of chronic dysentery, it is necessary to regulate the bowels by means of lavations, those employed must be of a mild, emollient nature, as castor oil, and it is well to unite this with opium, so as to prevent its overaction, or efervescence, and opiates may be given alternately, until our object is attained.

During convalescence from dysentery, tonics should be given so as to improve the constitution generally. For this purpose, the logwood decoction, and the infusion of Cascara, are well suited. Sulphate of Belladonna has been employed with good success, also a combination of diluted Nitric Acid and solution of Muriate of Morphia.

In conclusion, I beg to make a few remarks on Diet and Regimen - it is of the utmost importance
that great attention be paid to the process of digestion, and the condition of the skin. Whatever form the disease shall have assumed.

In the acute stage, when inflammatory actions are high, the patient must be put under the anti-phlogistic regimen. His diet must be spare, rather of a non-nutritious character than otherwise, and most certainly, non-stimulating. He is to abstain from the use of spirituous liquors, what drink he takes should be bland, simple, and cooling. The transition from low to more generous diet should never be attempted, until the inflammatory action has subsided, and even then the change must be very gradual. At first, the food should be farinaceous, small quantities only should be taken at a time, since the digestive powers are so much weakened. By and by, a little soup may be given, this and the different farinaceous substances should
constitute his diet during the greater part of convalescence, not until recovery is almost complete, should animal food in a solid state be allowed.

The patient should be covered with warm clothing and it is well to swathe the abdomen with flannel, so as to afford support to the tender viscera. He must be careful not to expose himself to cold, lest that excite the disease again.