Dysentery
and its
Complications

Short, but quite lucid and satisfactory.

C. Lindsay
Dysentery
and its Complications

This disease which may be called the scourge of armies on account of its destruc
tive effects both in camp and garrison. More devastating as the page of military history shows than the sword of the enem
accompanied armies alike in the field, and in the camp, has engaged the attention of medical men, from the earliest ages up to the present time.

History records to us that the armies of the ancients were often subject to some disease of this kind. In the invasion of England by William the Conqueror, his army
was nearly destroyed by dysentery.
In more modern times, no
disease has been so frequent,
both in Temperate & Tropical Climates.
According to Sir John Pringle its
sufferers in the Peninsular Army,
were very great, and other Authors
speak at length of its mortality among
the European troops in India.

Dysentery generally occurs in
Most countries in the Autumnal
Months, after the system has been
debilitated by the Heat of Summer.

Dysentery is derived from the
Greek words: "Dys, with Difficulty, and
Europa, the Bowels," signifying a
disturbance of the Function of the
Intestines.

It is an Inflammation of the
Mucous Membrane of the Intestine
with Swelling & Tenesmus, Fever,
Mucous & Mucus, Vomiting
Causes of Dysestheny

Dysestheny attacks individuals of all ages and ranks. A very frequent cause of it is the state of the atmosphere, its sudden transition from hot to cold. Prolonged heat and humidity. Marsh effluvia. Noxious exhalations floating in the air are evident causes of this disease.

An exhausted state of the constitution has some influence as a predisposing cause, as is seen in persons, like soldiers who have had long and fatiguing marches to make.

If to this is added the habitual use of spiritsuous liquors in excess, the two combined will be almost sure to aggravate the tendency to this fatal disease.
Foreign bodies lodged in the intestines, various indigestible substances, drinking water infected withecal matters and exhalations from the banks of lakes, rivers and canals are all exciting causes of the disease. The presence of worms in the alimentary canal, constituting the Ascaria Vermicola of some writers, is considered a frequent source of the disease. Exposure to cold and moisture, to miasmata, to the night dew, sleeping in the open air and more particularly on the ground without sufficient clothing, wearing damp and wet clothes, as often occurs with soldiers and seamen, frequently produces the disease giving it at the same time a rheumatic character. Many endemic causes, antecedent diseases, as agues, intermittent and continued fevers, preceding
Afections of the adjoining viscera, particularly of the liver and pancreas, operate by disordering or vitiating the secretions poured into the alimentary canal and thereby influence the production of dysentery.

Diagnosis of Dysentery

Dysentery is apt to be confounded either with fever, diarrhoea, cholera or colic, and is frequently diagnosed upon one or other of these diseases which are often present in.

Idiosyncratic fever with predominant affections of the bowels is distinguished from dysentery by the constitution being affected before the bowels became disordered. By the absence of severe tenesmus & straining, the want of pain in micturition and the presence of stools much more scanty than in any form of dysentery.
Diarrhoea being so closely allied to dysentery, they might be viewed as varieties or grades of the same disease. Dysentery frequently follows simple diarrhoea, but the latter occurs at any season and is more commonly a chronic disease than dysentery. It is not usually preceded or attended by fever, there is no tenesmus or straining; the evacuations are not bloody and there is no vomiting. Cholera differs from dysentery in the rapidity of its progress compared with the long duration of the latter. With cholera dysentery can hardly be confounded, for all the most predominant symptoms of the latter are wanting in cholera which soon passes off.
Uncomplicated Typhus is generally divided into acute and chronic.

**Acute Form**

For the first few days it frequently resembles a simple purging, after a time liquid feculent or mucous stools appear, sometimes streaked with blood and there is much griping and tenesmus.

The stools soon become more frequent, from ten to twenty in the twenty-four hours; the pain in the bowels is sometimes very slight, but in severe cases dysuria and dysenteric are often very great. The pulse is either small and quick or very slightly affected. The appetite is not much impaired, but the thirst is very much increased.

The mild form of the disease may last from seven to nine days, and terminate favourably, the skin becoming moist and soft and the
the patient getting quite well. However, when dysentery prevails epidemically it will be found to be of a more intense form than that described.

A well-marked rigor followed by heat are the premonitory symptoms in some cases, in others the disease begins by frequent scanty mucous stools streaked with blood, preceded by griping and tenesmus. The pain at first is often limited to the rectum & sigmoid flexure of the colon; the pulse is slightly accelerated & the tongue is of a whitish colour.

When the disease is fully developed, the calls for evacuation are more frequent and are preceded by severe griping & tenesmus, being of a mucous-sanguineous character, passed with great pain & straining. The patient has a feeling of something
remaining in the bowels which ought to be rejected. Prolapse can also occur if pure blood is sometimes passed in considerable quantity as to threaten the life of the patient. The pulse is more frequent and small and the tongue more loaded. The urine is scanty and high, coloured and voided with difficulty and scalding. If fever occurs it will continue throughout the disease and the debile symptoms will be more marked at night and the calls for stool more frequent. The pain in the abdomen becomes increased on pressure, full and tender, and this is a bad sign, as it indicates that the inflammation has extended to the peritoneum.

Should no relief be afforded before the appearance of these later symptoms, the prostration becomes greater, the pulse quicker and feeble, the extremities cold, the mind disordered, the features
altered. Hemorrhage & delirium comes on; the sphincter ani relaxes and death takes place at a period varying from ten days to three weeks from the beginning of the disease.

Simple dysentery presents every grade of severity between those now now described and such are the most common appearances; but the symptoms often vary according to the cause, age & strength of the patient and the parts of the canal first affected.

Restoration to health may be expected when there is diminution of pain in the abdomen, of tenesmus & frequency of the discharge, especially if instead of being mucous & insipid it become natural in colour and consistence and if the febrile symptoms & thirst abate & the appetite returns.

But very often, when the disease has run through the acute stage with severity, its symptoms instead
of being removed are only mitigated; it assumes a chronic form and will continue to affect the patient for several years. When acute dysentery is combined with fever, the rapid death which sometimes occurs, is said by some authors to be due to the virulence of the fever itself rather than to the dysenteric symptoms. Though sudden death may occur from the escape of the contents of the intestines into the cavity of the peritoneum in consequence of ulceration. No disease is so apt to return from errors of diet, intemperance & exposure to cold, for although a favourable return to health may be accomplished yet the malady is extremely prone to pass into the chronic form to be presently described.
Chronic Dysentery

This form is rarely met with in this country unless in individuals who have come from warm countries, where they have suffered frequent attacks of the disease. The fever of the chronic form generally subsides during the day and temporary recruiting of the strength, appetite takes place. The tenesmus are slight; the patient occasionally feels sharp griping pain in the bowels with frequent stools consisting of good apparently little changed by the process of digestion, mixed with slight streaks of blood. These symptoms may outside recur at intervals without any apparent cause or from error of diet. They also vary according to the progress of the disease.
and the amount of structural injury, from a simple relaxed state of the bowels to a more severe form of the disease. In the latter case the stools are mucous and bloody, often mixed with purulent matter. The blood is either mixed with the evacuations or is passed liquid or in a coagulated state. The stools are more copious than in the acute form but not so numerous. The abdomen feels full and tense, but is not very painful on pressure except about the cecum and sigmoid flexure of the colon. The urine is high colored and passed with much pain. Fever generally sets in at night or the pulse becomes quick and weak, the skin cold and dry and the patient countenance is sunk and anxious. Emaciation is very great in the more advanced stage of the disease. The legs become
edematous, the surface elevations give out an offensive and acrid
odour & finally after the lapse
of weeks or months of continued
or remittent suffering, the patient
sink under the combined effect
of hectic fevers & exhaustion.

Tropical Dysentery

There is a form of dysentery in hot
climates called Colonies, from
the colon being the seat of the
inflammation, which occurs very
frequently among European troops
on their arrival in India.

It is very destructive & arises
from the abuse of spirituous
liquors; sleeping in the cold night
air after much fatigue & the
use of large quantities of water
when in a state of fear.

The disease in whatever way
it may be excited is said to
commence with much of the
appearance of common diarrhoea, occasional griping pains in the bowels, frequent calls to stool + great straining. The evacuations are copious & sometimes mixed with blood, the pulse at first is not much altered & the fever is slight, but the patient soon begins to complain of a fixed pain in the hypogastrum. The discharges become more frequent & of a muco-sanguinolent kind, the tongue is white + loaded, the skin bitter hot and dry or covered with profuse clammy perspiration, the pulse becomes quick & in fatal cases has a peculiar thrilling sensation under the finger. From all these symptoms the patient may recover, but very often the pulse sinks rapidly, pain ceases and delirium supervenes with hicouph & vomiting which proves very distressing to the patient.
The skin becomes covered with cold sweat, a peculiar cadaverous smell is emitted from the body and death soon makes its appearance.

Complications of Dysentery.
This disease is often complicated with disease of the liver & spleen, with jaundice, scurvy, hemorrhoids and rheumatism.

Hepatic Dysentery. While generally attacks men who have been some time in hot climate, assumes various forms. It is sometimes acute, but much more frequently of a chronic character. In this complication the liver is inflamed, enlarged or otherwise altered in structure, previously, coexisting with or consequent to the dysenteric affection. It often commences with a common diarrhoea. More generally with chills or rigors followed by severe
pains in the head, bilious vomiting & stools. The discharges are
free from blood, of a greenish hue,
or reddish brown, often watery &
voided with great pain & restlessness.
The patient complains of dyspnoea,
vertigo & a feeling of tension & pain
on the right side of the thorax, with
great thirst & distaste for food.
His pulse is accelerated & irritable;
his tongue at first white & after of
a yellowish colour & becomes covered
with a dark crust at the root.
As the symptoms continue, debility
& lassitude increase and the body
soon emaciates. This form of
Sydeney does not often prove fatal.
When Sydeney follows acute
or remittant fever it is often com-
plicated with softening & enlarge-
ment of the spleen, especially
in localities abounding with malaria.
In some cases the syphonic affection
cannot be detected, unless the spleen is enlarged.
When the liver is diseased, dysentery is sometimes observed to be associated with jaundice, but it may occur when there is no structural change of this viscus, owing to the ducts being obstructed.
Dysentery complicated with scurvy is apt to attack persons who have had dysentery, who are subjected to the causes of scurvy, such as—living on salted provisions without a sufficient supply of vegetables, unwholesome food, debility from previous disease, great fatigue, exposure to damp, air of marshy localities.
In this complication the countenance is pale & pallid & emaciated, sometimes, the legs always, the face & arms & limbs & feet & hands blead upon the slightest pressure. The other symptoms of
Searing may be present along with diarrhea. The patient feels greatly frustrated due to slight low spirits.

When dysentery is complicated with hemorrhoids, the chief symptom is the tenesmus which is sometimes extreme. The disease may terminate by a copious discharge of blood from the internal hemorrhoidal vessels after a great amount of suffering on the part of the patient.

Rheumatism may be present at the same time or follow the dysenteric affection. This complication is caused by cold and moisture, vicissitudes of temperature and attacks generally those who are of a rheumatic diathesis.
Termination and Prognosis of Dysentery.

Acute Dysentery may terminate:
1st. in restoration to health.
2nd. in some visceral disease as inflammation or abscess of the liver, peritonitis or enteritis, periodic or continued fever.
3rd. in ulceration or perforation of the bowels.
4th. In constriction of the colon and other organic affections, or in gradual exhaustion of the constitutional powers.

A favourable termination may be expected if the stools become more copious and feculent and less frequent, if there is a more natural secretion of bile, if the process abates and the patient finds more rest during the night, if the pulse, skin and tongue are more natural and lastly if the febrile symptoms
abate between the fifth and seventeenth day.
If at the end of this time no improvement in the symptoms takes place, or if the bad symptoms increase, we may expect an unfavourable termination; particularly if the abdomen becomes greatly enlarged, tense, and tender, and if the patient has continual calls to stool and loss of blood.
Ulceration may take place early in the disease, even in the milder forms without any indication of it being present. However, if much blood is passed along with muddy, glutinous stools, ulceration is very often present and may pass into gangrene.
The chronic form of typhoid, besides terminating in ulceration, may also cause stricture of some part of the colon or rectum.
or both, frequently with dilatation of the portion above the constriction which often terminates in rupture of the more dilated ulcerated parts, and in effusion of the intestinal contents into the cavity of the peritoneum.

Morbid Anatomy

Upon opening the abdomen of persons who have died of dysentery, a quantity of serum sometimes mixed with coagulated lymph is found accumulated in this cavity. The omentum is frequently inflamed; sometimes it is found adherent to the superficial convolutions of the intestines, or to the brain of the pelvis or to some part of the abdominal parietes, being generally firmer than usual & of a doughy feel. When the dysentery has
been complicated with hepatic disease, as has been unusually protracted. It is then, destitute of fat & quite transparent.

The only appearance of disease which the large bowels, the principal seat of disease, present externally, is their distension & change of colour which may vary very much. Sometimes it is blue or bluish grey, at other times purple and print, finally it may be of a natural colour.

The colon is sometimes displaced; the sigmoid flexure may descend low in the pelvis & become adherent to the urinary bladder and rectum; thus explaining the disorder of the urinary functions during the course of the disease. The colon may also be contracted at some points, generally about the sigmoid flexure & near the rectum.
Laceration of the distended part may have occurred, causing effusion of the contents of the bowel into the peritoneal cavity and adhesions of the peritoneal surface of the bowels to adjoining parts.

The large bowels, internally, present different shades of colour, from greenish gray to black; some parts of it are covered with coagulable lymph; others, present bevaviours of the mucous surface, with ulcerations of it and the submucous tissue. That portion of the bilious coat intervening between the ulcers has a loose & pulpy appearance.

The inner surface of the intestines appears to be sprinkled with a soft curdy like substance. These specks are from a line to an inch in diameter; upon removing the whitish substance covering the specks, a depression or incipient ulceration...
is exposed, the base or margin is dark red and sometimes the ulceration is complete. These ulcers are oblong, about about an inch in length, & the longitudinal diameter is always in a transverse direction to the cavity of the intestine.

The ulcers occur most frequently at the sigmoid flexure of the Colon & at the rectum. The ileo-caecal valve has sometimes been found destroyed by the extent of the ulceration.

The contiguous viscera are generally diseased in complicated dysentery. The Mesentery is found more vascular than usual & its glands, though generally found enlarged, are often swollen, injected and softened. When the disease is consequent on fever, the Splen is often enlarged or softened.

In the Hepatic & Scrobutic
complications, the liver is congested, inflamed, & sometimes suppurating. The gall bladder is always filled with viscous thick bile.

Treatment of Dysentery.

The treatment of dysentery has always varied very much, and the following is the list of the remedies employed by various authors at different times & places:

Bleeding, vomit of Bontius, Physician general to the East Indian Company. 1629.

Grecanumbras puyg.
The extract of Saffron, "the anchor of hope," fruit, diet, emollients, fomentations and enemas.
1768. Sir John Pringle, Army Surgeon.

Bleeding, vomiting. Calomel purgative. Opium.

Chiefly purgatives. Of Madder, naval stage; small doses of ipecacuanha powder, astringents.

1782. Mr. Curtis, in the advance of Madras, naval stage; small doses of ipecacuanha.

Blood letting, venesection.

1799. Sir Gilbert & purgatives at the beginning; followed by small doses of ipecacuanha.

Bleeding, Mercury; full doses.

1813. Dr. James Sidorfiges, with Johnson, naval occasional mild purgations, anodyne.
Emetic of Ipsacuanth, followed by full doses of Calomel, purgatives, general & local bleeding according to constitution, length of service in India, etc.

Scraped doses of

1832. Dr. J. Smith, Colonel given Edinburgh, epidemic short of salvation, agency, the more common measures having failed.

From this list it will be seen that bleeding both general & local was resorted to by the greater number of practitioners, I was then thought by far the best remedy & nature, says Dr. Johnson thus relieved.
During immersion in warm bath, copious bleeding - 
the sovereign remedy.
Emetic of Jpecuanha
& Tartar emetic.

Mercury with Miled Purgatives, Antimonials, charcoal - Rhubarb & Jpecuanha in repeated dose.
Enemas of solution of Acetate of Lead & of Charcoal.

In acute Dysentery.
Topical bleeding.

Purpura.
Suborifices by infusion.

1817. Sir Robert
Jackson.

1818. Sir George
Ballingall, army
surgeon.

Opium, warm baths
blisters. In chronic
D. calomel & opium.
Emetic of Ipecacuanha
followed by full doses of Calomel,
pergatives, general & local bleeding
according to constitution, length of service in India;
Sedatives.

Scruple doses of
1832 Dr. T. Smith, Colonel given
Edinburgh. Epidemic short of salivation,
dysentery. the more common measures having
failed.

From this list it will be seen that bleeding both general & local was
resorted to by the greater number
of practitioners, I was then thought
by far the best remedy of nature,
"say Dr. Johnson thus relieved"
Attempts a restoration of equilibrium by some degree of action on the extreme vessels on the surface, and by sympathy of the secreting vessels of the liver."

Bampfield remarks: "In dysentery it happens that a certain degree of debility must be induced, either by the antiphlogistic regimen or by the protracted disease gradually exhausting the animal vital powers; hence it is thought preferable to induce a certain degree of it by bleeding & thus putting a speedy termination to the disorder & preventing the distressing & sometimes fatal effects of the chronic stage. However bleeding is very little practiced now and ought perhaps to be less used in this disease than in any other on account of the continual draining which dysenteric produces on the system.
Mr. Hope, in the Edinburgh Medical and Surgical Journal, vol. xxvii, recommends a mixture of nitrous ether and opium for the cure of dysentery. He speaks highly of its beneficial effects both in acute and chronic dysentery. His formula is the following:

Recipe:

Acidi Nitrosi 3j

Pris: Camphorae 3 viij Mixas et addas Tinct. Apici 3 st xi

One fourth part to be taken every three or four hours.

In chronic dysentery, he says, the dose of two ounces, three times a day, is quite sufficient; the remedy is grateful to the taste, abates thirst, soon removes the intensity of pain and procures in general a speedy and permanent relief.

When the thirst is great, citric acid may be given as a drink. Colonel has been often employed
and Dr. George Ballingall thus recommends it in the treatment of chronic dysentery: "If I have refrained from an indiscriminate and I conceive, unmerited commendation of this powerful medicine, it is only in hopes of being able to urge its employment with double force in the chronic form of dysentery, to recommend an implicit reliance upon it, to ascribe to it an almost unlimited power in the disease, and to express an opinion that it will seldom disappoint our most sanguine hopes." Not much used at present.

Powdered charcoal, combined with powder of Ipecacuanha and Rhubarb was found advantageous, and a combination of the same substances with Dover's powder was recommended by Dr. Abercrombie, as also the compound chalk mixture with opium & quina of Cinchona.
In the 1st. vol. of the Lancet for the year 1852 a Brazilian Method of treating Typhus with Infusion of Jacaunanca is given. It consists of the following:

From 1/4 to 3/4 of Jacaunanca are powdered, & from 8 to 12 ounces of boiling water poured over the drug. Ten or twelve hours infusion are sufficient and the patient takes the whole in the morning, either at once or in two or three portions drunk off closely upon one another. Vomiting & abundant stools soon follow. The next day the same dose is taken, a second infusion having been made with the grounds of the first; the vomiting is now less but nausea is kept up, and the third day an infusion with the same grounds is again made & taken as before. Another author on the subject does not think that the
Shock and Nausea cure the disease, but that the success is obtained by the small quantity of Specacuanhan which is absorbed. He therefore gives the infusion sweetened and aromatized only in small doses, so as to obtain a tolerance of it, and he has thus succeeded in curing the disease in a few days.

The surest sign of improvement is a change in the character of the stools, which from being mucosanguineous, purulent, or composed of pure blood, become serous, bilious and gradually more solid, just as the Specacuanhan acts favourably.

Specacuanhan is now the favourite remedy for dysentery and is the drug in most general use. These pains every hour or two are said to arrest pain and produce
rapid convalescence, some combine mercury and camphor—540 grains in eight days or 2160 grains in eighteen days have been given without producing vomiting.
Sulphate of copper and acetate of lead have also been a good deal used in chronic dysentery, especially the latter when much blood is passed. Dr. Christian has found that the Aigue Marmelos or Indian Bael has succeeded in curing chronic dysentery when all other remedies had failed.

Tropical dysentery is to be treated in the same way as acute uncomplicated dysentery.

The other forms of dysentery are to be treated according to their various complications. When the liver is specially disordered, large doses of calomel are recommended by some and in spleen complications...
Cinchona with rhubarb.
If symptoms of Scrobutus be present, fresh meat and vegetables are beneficial, as also the liberal use of lime juice and sugar.
If worms be present the use of anthelmintics, such as the Male Fern followed by castor oil, will relieve the patient.
When the patient has recovered from chronic dysentery, he must be very particular and not commit any errors of diet. He must also avoid fatigue, long marches and getting wet and especially take care not to expose himself to the damp, night air after a very hot day. With these precautions he may avoid the recurrence of this insidious disease.