Notes of Lectures on the Theory Practice of Medicine: Delivered in the Jefferson Medical College, at Philadelphia.

John Eberle, MD
LECTURES

ON

THEORY AND PRACTICE OF MEDICINE:

DELIVERED IN THE

JEFFERSON MEDICAL COLLEGE,

AT

PHILADELPHIA.

BY JOHN EBERLE, M. D.

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NOTES OF LECTURES.

CHAPTER I.

OF FEVER IN GENERAL.

Idiopathic—(seldom.)

Symptomatic,—dependent on:

local irritation,

— inflammation,

generally seated in the mucous tissues;—frequently in the serous.

Proximate Cause:

located in the capillary system of blood vessels.

The morbid actions of the heart and arteries are mere sympathetic phenomena, dependent on a primary local irritation of a part or the whole of the sanguiferous capillary system.

The proximate cause consists:

in a deranged condition of the vital properties of the capillary system—whence result irregular actions, from the impression of normal and innormal irritants.

Remote causes of fever: divided into:

predisposing, and exciting.

There exists, however, no essential distinction between the predisposing and exciting causes. Every predisposing cause may become an exciting cause, by continued or intense action.
PREDISPOSITION consists for the most part in: local, and rarely in mere general debility.

The origin of all possible cause of fever is quadruple:
1. Retained recrementitious materials, in consequence of the accidental torpor of one or more of the emunctories.
2. Substances generated in the system, independent of organic actions: worms, acid, &c.

General nature of these causes.

They are irritants:
Some of them invariably produce the same disease, as the contagions.
Certain distinct febrific causes cannot develop their morbid effects at one and the same time in the same system: measles and small-pox.

All morbid agents act primarily on the nervous system, through
The lungs and respiratory passages,
The stomach and intestinal canal,
The skin, and
The blood.

It is highly probable that all morbid morbidic agents act on the system through the respiratory organs. Some of them may be absorbed into the circulation, and act upon the nervous extremities of the capillaries, through the medium of the blood; others may act directly on the nerves of the mucous membrane of the respiratory passages. The former mode of acting, is, I presume, generally, if not always the case.
The predisposition to disease is considered by some to consist in debility. Morbific agents acting on the system do not act equally on every part; they direct their influence more particularly to one part of the system in preference to another. This unequal impression of the morbific agent destroys the balance of the circulation, and the disease in consequence is developed. Two specific diseases cannot run the same course in the system at the same time (as for instance, small-pox and Measles). Unless these two different diseases occupy different structures of the body; thus Rheumatism occupying the muscles or fibrous membranes, and measles occupying the skin or serous tissue. May exist at the same time. Pathologists are not agreed as to the part on which Contagious & Measmatic agents primarily act. Some pathologists assert that the morbific effluvia become entangled in the saliva and are carried to the stomach upon which organ the primary compression is exerted. This doctrine is taught in the University of Perouz at the present time. Other pathologists amongst these Dr. Eberle contends that these morbific poisons produce their impression upon the general system.
by being absorbed through the medium of the lungs, and from thence carried by the blood to all parts of the system; that these agents produce some impression upon the stomach, after having been absorbed through the medium of the lungs, he does not deny.

Cold, though sedative, producing a diminution of the action of the heart and arteries. It is decidedly stimulant to the sensitive system; we all know that persons in a state of sleep are immediately roused by the sudden application of cold in the shape of water. This application producing a shock or impression upon the Nervous System. Dr. Chalmers pointed out that diseases are more obtained from parents to offspring, and that the weakness only is hereditary.
The causes of fever are divided into three classes.

1. Sensible properties of the atmosphere: heat, cold, moisture, electricity, &c. &c.
2. Contagions,—the result of organic actions.
3. Miasmata,—the result of physical changes.

Heat. Specific temperature of the human body, 98°. Most agreeable temperature of surrounding air, 65°. Atmospheric heat not a deleterious agent; predisposes to the influence of morbific causes; increases the secretion of bile; indirect cause of disease, by favouring the generation of miasmata.

Dr. Johnson observes, that solar heat only produces the predisposition; while terrestrial exhalations, and vicissitudes of temperature, call into action the principal diseases of warm climates.

Cold. No positive existence—a mere relative degree of temperature; lessens the action of the heart and arteries; causes a shrinking of the surface of the body; diminishes sensibility and contractility; produces irresistible disposition to sleep; and depresses the moral and physical energies of the system, when long and intensely applied. Suddenly or transiently applied, it excites the nervous system. In alternation with heat, a fertile cause of disease; the diseases resulting from its influence, mostly pneumonic, catarrhal, or rheumatic; cold water, externally applied, or received into the stomach when the body is heated and in a free state of perspiration, often proves suddenly fatal. Always more injurious in its influence, when accompanied by moisture.
Miasmata. Heat and moisture essential to the production of miasmata.* Moisture need not be abundant; inundated grounds extricate little or no miasmata; hence the rainy seasons of tropical countries are the most healthy. Miasmata are seldom generated at a temperature below 80°; their precise nature unknown; there is reason to believe, that they consist of particles of putrid vegetable and animal matter, dissolved in aqueous vapour. Chemical analysis can detect no difference between the air of marshes and atmospheric air. Gaspard's experiments on putrid matters received into the body, support the opinion that marsh miasmata consist of putrid vegetable and animal matter suspended in the air.

Miasmata possess greater specific gravity than atmospheric air; they are conveyed to a considerable distance by currents of wind; the distance at which they are capable of infecting, by being thus carried, is from two to three miles (Bancroft says, but one-fourth of a mile;) storms and violent blasts disperse and render them innocuous; more danger in miasmatic atmosphere at night than during day; most danger about the setting or rising of the sun; situations are protected from the effects of miasmata, by interposing obstacles, as houses, walls, wood, hills, &c.; long and gradual exposure to miasmata, destroys the susceptibility of the system to their more violent influence. Persons unaccustomed to them seldom escape disease, when sub-

* It has lately been contended, that moisture is not essential to the generation of miasmata; but, as I believe, without good grounds. (Ferguson.)
Experience has shown that miasmata may be conveyed in a sufficiently concentrated state to produce disease, a considerable distance. Some assert for the distance of 5 or 6 miles. Samuel Pringle in his book asserts that it cannot be conveyed further than a quarter of a mile from the place where it is generated. In other instance a fleet of vessels lying off the River Thames nearest to the land being 1/4 of a mile from it were affected by the miasmata from the land and those ships were affected by the consequent disease - the ships next to these some being only a hundred yards off were entirely exempt from disease: Those ships which were nearest to the shore or being removed farther off became perfectly healthy. But for climate affects that miasmata passing over a sheet of water is absorbed. He says that when he was in the vicinity of the Susquehanna River that intermittent fever existed for 2 miles into the country from the east bank of the river while the surrounding country was perfectly healthy. Long continues heat is necessary to the production of miasmata in sufficient concentration to produce epidemic disease. Persons living to the windward of stagnant pools or places where miasmata is generated remain unaffected by disease, while those who reside on the opposite side do not escape it.
Contagious diseases are produced by propagation from one person to another. Contagious diseases are universal in their symptoms & phenomena; new change their specific characters. Thus the Smallpox & itch are the same diseases which they were at the time they were first noticed by the ancients. There are 3 kinds of contagious diseases: those which are local or itch, smallpox, &c.; those which are general or which affect the whole system as typhoid; and those which affect the whole system and are also attacked by local disease as syphilis.

The most malignant contagion is rendered harmful by its diffusion in the air. Thus the utility of Ventilation. Substances to which contagion is attached as old clothes, &c. may be carried in close vehicles to distant Countries & thus produce the contagious disease. Contagious diseases frequently occur spontaneously by a convergence of causes which seldom take place. Originally, all the contagious diseases now known must have occurred in this way. And there is no doubt that contagious diseases occasionally occur and are again lost. The best way of disinfecting substances to which contagion is attached is to bake them in an oven, or expose them to a high degree of artificial heat.
jected to their action. They produce inter-
mittents and remittents, of various grades
of violence.

Contagion. A deleterious agent, generated by
the living body in a state of disease. The
diseases produced by this class of causes,
preserve a determined or specific character;
contagious diseases divided into chronic
and acute; the latter seldom affect the same
person more than once;—the former may
affect repeatedly; in the acute, there can be
no relapse. Contagious matter either a
palpable substance, or an imperceptible ef-
fluvium; chronic contagious affections al-
ways produced by the former, and by actual
contact; some acute contagious diseases
communicated both by contact and through
the medium of the air; that is, both by a
palpable virus and an effluvium. Typhus
fever, under certain circumstances, cont-
gious; appears to be propagated by effluvia
only.

Contagious effluvia extend but a short
distance, sufficiently concentrated to pro-
duce disease. The experiments of Dr.
O’Ryan make it but a few feet—four or five
feet; currents of air will convey it much
further; contagions rendered harmless by
diffusion in the air; hence the utility of free
ventilation; contagion attaches itself to
various substances; the substances most
apt to receive and retain it, are, wool, hair,
cotton, wood, cloths, &c.; contagion influ-
enced by certain occult conditions of the
atmosphere; contagious diseases commu-
nicated from the inferior animals to the
human species.
OF FEVER IN GENERAL.

Disinfecting means; cleanliness; free ventilation; muriatic and nitrous vapours; lime; fumes of sulphur, and heat.

CHAPTER II.

GENERAL DIAGNOSIS.

Diagnostic signs divided into those exhibited by the countenance; the attitude; the nervous system; the digestive organs; the circulatory system; the respiratory organs; the cuticular surface; the lymphatic system; the secretions.

THE COUNTENANCE. The features to be particularly examined, are: the eyes; the prolabia; the nostrils; the lips; the brows.

In acute simple fever: eyes and face red; respiration hurried; motions of the nostrils rapid. In acute sympathetic fever, these signs are absent. (Hall.)

Acute pain, from inflammation in the chest: features much contracted; the alæ nasi acute and elevated, the nostrils contracted and expanded by the acts of respiration, sometimes a vivid flush terminating abruptly—heat inconsiderable.

Dull pain in the chest: less constriction of the features; an expression of great anxiety; nostrils widely dilated before inspiration.

Effusion into the lungs: countenance livid, anxious, turgid, with great dyspnœa, and dilatation of the nostrils on inspiration.

The phthisical countenance.
Acute pain in the abdominal viscera: features acute; forehead wrinkled; brows knit; nostrils drawn up and acute; upper lip drawn up; the under lip drawn down, exposing the teeth.

Organic affections of the heart: countenance anxious; vividly flushed; prolabia livid; face turgid, edematous, cold. In hydrothorax, the face has a pale-livid aspect.

Soporose affections: flushed, livid, tumid, eyes closed or open and fixed, mouth frequently drawn to one side.

In syncope: pale, shrunk, cold, and death-like.

In chlorosis: pale, exsanguineous; icterode; puffy; a peculiar darkness occupying the eyelids, and extending towards the temples and cheeks, and sometimes surrounding the mouth.

Distinction between the icterode appearance, and the different shades of icterus, (Hall) the yellowish tinge in the latter is particularly seen in the albuginia of the eyes; in the former, the eyes remain untinged. The tinge of icterus depends on bile; that called icterode, on a morbid action of the cutaneous capillaries. (Hall.)

Chronic irritation of the bowels: puffy countenance; upper lip pale and swollen; occurs in verminous affections and in scrofula.

Attitude. The healthy attitude:

Advantages to be obtained from position, in the treatment of diseases.

Preternatural determination to a part, diminished by elevating such part: the head to be raised, in apoplexy; the extremities, when affected with inflammation.

Supine position, with tremulous motion, indicates much muscular debility.
Fever from acute local inflammation; not attended with great muscular prostration.

Characteristic position in hydrothorax: in slight cases, head and shoulders elevated when in bed; in severe cases, inability to lie down. The erect position more urgent, when complicated with organic affection of the heart. When sitting up, hands forcibly pressed on the chair on which the patient sits; or leaning back, with the arms and hands placed behind the back. (Hall.)

Thoracic effusion, distinguished from mere organic disease of the heart and lungs, by the effects of firm pressure on the epigastric region, and bodily exertion. Effects of pressure, in effusion: general agitation, cough, and a sense of suffocation; not so, or but slightly, in organic affections of the heart and lungs; bodily exertion excites more dyspnea, and distress in effusion, than in organic affections.

Position assumed by the patient, in abdominal inflammation, with acute pain: fixed, carefully avoiding all motion and pressure; generally on the back, knees drawn up, and head and shoulders a little elevated.

Position assumed in spasmodic pains of the abdomen: constantly changing posture, desirous of pressure on the abdomen, recumbent on the belly, &c.

Position on the back, with knees constantly elevated, in the latter stage of acute diseases, a sign of retention of urine.

The Tongue. Attention to be paid to its colour, its surface, its shape, and the manner in which it is protruded.
or physicians cannot comprehend a disease and prescribe rationally and upon scientific principles for the cure of that disease unless he comprehends in all their bearings the symptoms and characteristic marks of such disease.

In Thoracic Effusion the patient breathes more freely while his head and chest are elevated from the circumstances that when in this position the effused fluid subsides to the lower part of the cavity of the chest, it leaves the upper portion comparatively free from it pressure and insinuates hence the patient soon becomes more active, but in fever from any cause inflammation now or hereafter in the fibrous syrinx may renew friction and continue a protracted length of time without producing comparatively any serious disability.
As phthisis proceeds a disposition to sleep is so
enjoyed Blood produces a contrary effect.
When the eye is insensible to light the ear is so
the brain is always in an irritated state.
When a joint becomes numb it is sensibly to touch.
We may infer that the nerve supplying the joint
will diminution has been pressed upon so that
it has become diseased.

Pain in the knee is one of the earliest symptoms
of knee joint disease. When the convex surface
of the knee is inflamed pain in the right
shoulder almost always accompanies it.
irritation in the neck of the bladder causes
pain in the gland penis.

In conjunction the tongue is large.

Flaccid

In typhus when the brain or its mem-

branes is insulted inflamed the tongue
is thickened, pointed, tumefied when pro-
truded the corners indicate nervous debility.
A white and slightly loaded tongue, indicative of slight gastric derangement and moderate febrile excitement.

A clean, deep red, smooth tongue, indicates inflammation or high irritation of the mucous membrane of the stomach and intestinal canal.

Tongue seldom much affected in acute symptomatic fevers, from wounds or external inflammations.

Florid papillae protruding through a layer of white fur, characteristic of scarlatina. (Hall.)

Diagnosis, from the appearance of the tongue, between phthisis, and hectic with cough, from hepatic and gastric affections: tongue natural in the former; covered with brown fur in the latter.

A pale and tumid tongue, with large papillae, indicative of gastric debility—met with in chlorosis.

A contracted and pointed tongue, frequently an attendant on cerebral or meningeal inflammation.

A flabby and dilated tongue occurs in congestive states of fever. (Miner.)

A yellow and bitter tongue, indicative of biliary derangement.

Morbid States of the Nervous System.

Disturbed sleep. Coma always denotes oppression of the brain.

Wakefulness, a sign of great irritation or exhaustion.

Sudden starting in sleep—intestinal irritation from worms, &c.

Hurried wakings, with a horrid sense of suffocation, a sign of organic disease of the heart.
GENERAL DIAGNOSIS.

Strabismus, double-vision, signs of cerebral affection.
Torpor of the sense of touch.
Morbid sensations.

In strumous disease of the mesentery, an unusual sensibility to cold constitutes a peculiar and very early symptom. (Hall.)

Pain may arise from inflammation, from spasm, and from nervous irritation. They have each their peculiar character.

Inflammatory pain: tenderness of the part, increased on pressure; throbbing or burning continuous, and attended by febrile excitement.

Spasmodic pain: paroxysmal, not throbbing, nor burning, relieved by pressure, and seldom attended with fever.

Neuralgic pain: transient but violent paroxysms, darting along the nerves with the rapidity of lightning; no swelling, no heat, and readily renewed by the slightest touch.

Inflammatory pain, modified by the nature of the structure in which the inflammation exists. Diagnostic inferences. Pain referred to parts remote from that in which the primary affection resides.

ALIMENTARY CANAL.

Nature and appearances of the alvine discharges. Clay-coloured fæces indicate deficiency of bile—met with in jaundice. Diagnosis between infantile remittent and hydrocephalus—the alvine discharges in the former are dark brown, or mudlike, and very fætid—in the latter, glairy dark-green, like chopped spinage. (Cheyne.)
If of the pleuræ, the pain is acute & purging.

If of the Substam of the Lung, dull & acute.

If of Stomach becoming benæignant.

If of Liver is purgatorial and acute & lancinating.

If of the Substam of Liver are very acute & dull.
In organic affection of the heart, the perception of dyspnea is sudden and violent.
Watery and reddish stools, like the washings of flesh.

Mucous and bloody stools.

**Respiratory Organs.** Accelerated respiration always attended with frequency of the pulse. Irregular and unequal respiration indicates cerebral oppression;—slow, irregular, and sterterous breathing, attends a high degree of cerebral compression.

*Abdominal respiration,* indicates pneumonic inflammation.

Breathing with the intercostal muscles, without the accessory action of the abdominal muscles, indicates abdominal inflammation.

Peculiar respiration in hydrothorax: inspiration quick, and with great effort; respiration slower, without effort. (Hall.)

The effects of corporeal exertion on respiration: produces great dyspnæa in hydrothorax, and still more in organic cardial affections.

*Wheezing respiration*—in asthma, cynanche trachealis. Hurried, panting, and heaving respiration, with sighing, often attends intestinal irritation and exhaustion from hæmorrhage. (Hall.)

**Cough.** When the efforts of coughing are anxiously repressed, there is probably inflammation in the chest or abdomen.

*Spasmodic cough*—in pertussis—sometimes from irritation of the stomach.

**Sputa.** White cream-like, in chronic bronchitis.

Effects of full inspiration and expiration, as a diagnostic.*

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* See Dr. Hall's work on Diagnosis.
Cuticular Surface. Its temperature; its colour; its state of dryness or moisture; its fulness or construction; its roughness or smoothness.

A yellowish tinge indicates biliary derangement; not to be confounded with the sallowness which occurs in cancer and chlorosis.

A purple or bluish colour occurs in infants, from pervious foramen ovale.

Dark coloured or purple spots,—extravasations of blood.

A pale, semi-transparent skin, particularly of the prolabia and face, manifests paucity, or very serous, blood—after profuse bleedings and from anæmia.

Cold skin, with a feeling of internal heat, denotes internal congestions.

Calor mordax—in typhus.

Permanently dry and husky skin, indicates torpor or chronic disease of the liver.

Urine. Small in quantity, and red in inflammatory affections; copious and limpid in nervous diseases.

Bilious urine.

The various sediments—lithates; phosphates; the former are red or purple—the latter, white or pale yellow.

CHAPTER III.

THE PULSE.

The pulse varies with the age of individuals; at birth, it beats from 130 to 140 in a minute; mean rate for the first month, is 120; limits during the
first year, are 106 to 120; for the second year, from 90 to 100; for the third, from 80 to 90—nearly the same for the fourth, fifth, and sixth years; in the seventh year, pulse about 78; from the twelfth year, it differs but little from that of adult age, which is estimated at from 60 to 80, according to individual constitutions, &c. (Heberden.) The common standard of frequency may be placed at from 70 to 75 beats in a minute. (Falconer.) From the 45th to the 60th year, the pulse gradually becomes slower; after this period, it again rises in frequency. (Floyer.) Generally more frequent in women than in men. (Falconer.) Climate influences the pulse; more frequent in hot than in cold countries. The time of day: slower in the morning than at other times; most frequent soon after dinner; slower during sleep than in the waking state. Bodily exercise accelerates the pulse; varies according to the position of the body; slowest while lying down; slower when sitting than when standing. (Dr. Robinson.) Mental excitement influences the pulse; joy, and anger, render it fuller, and more frequent; grief, sorrow, and fear, depress it.

Mode of examining the pulse. (Celsus, Rush.) Not to be examined immediately on entering the patient’s room;—the examination to be repeated at short intervals; should be felt in both wrists, the arm having its muscles relaxed by proper positions; two or three fingers to be applied to the artery; thirty or forty pulsations are to be felt at each examination; examined in different positions of the body: talking must be forbidden.

Pathological Condition of the Pulse; considered in relation:

1. To the force of the pulsations.
2. To the rythm or mode of the pulsations.
The most prominent and useful pathological states of the pulse, consist in: frequency, quickness, strength, fulness, hardness, and irregularity.

A frequent Pulse is one in which the pulsations succeed each other with preternatural rapidity; a pulse beating more than 160 in a minute, scarcely to be counted; great frequency of pulse always connected with great prostration of the vital energies; frequency, with fulness and strength of pulse, more dangerous than the same degree of frequency, with softness and moderate fulness. When it rises above 120, in inflammatory fevers, much danger is to be apprehended. (Heberden.)

Slow Pulse: occurs from cerebral compression,—internal venous congestions; and impairment of the vital energies, as in apoplexy, congestive fevers, and malignant fevers.

Quickness of Pulse: often confounded, improperly, with frequency. Quickness refers to the suddenness with which each individual pulsation is made—frequency has reference to the number of pulsations in a given time. Quickness, however, is generally attended by frequency.

A strong Pulse is one which gives the sensation of preternatural resistance to the finger, during the diastole; not to be confounded with a hard pulse. It is hard, when the artery is felt firm under the finger like a tense cord, both in its systole and diastole—sometimes called coreded. Strength and great frequency never united, a strong pulse seldom exceeding 115 beats in a minute; a strong
pulse indicates energy of the vital powers, and is therefore favourable.

A Feeble Pulse, the reverse of a strong pulse: it is feeble, when the artery produces a weak impulse against the finger, during its diastole. Feebleness and softness of pulse, not synonymous—the artery may resist pressure, and yet pulsate very feebly. The pulse is soft, when the artery appears to be filled, and yet offers no resistance, vanishing by slight pressure.

A Very Soft Pulse seldom attended with great frequency, or with irregularity; occurring in the advanced stages of fevers, favourable; when joined with great difficulty of respiration, and suffused countenance, in pneumonic inflammation, indicative of much danger.

Full Pulse. Never very frequent; sometimes much slower than natural.

Small Pulse—the diameter of the artery is smaller than natural; in inflammations seated above the diaphragm, the pulse is generally full—when seated below, it is small. (Borden.)

Depressed Pulse: small, and apparently feeble, and occasionally quick; does not depend on actual debility or exhaustion, but on internal venous congestion. Blood-letting will raise this pulse; distinguished from a small and weak pulse—by attending to the prevailing diathesis,—by suffering a few ounces of blood to flow, and watching its effects,—and by observing the period of the disease in which it occurs; if it is small and obscure in the beginning of acute diseases, we may presume it is depressed.
Intermittent Pulse: when not attended by other alarming symptoms, not in general a dangerous sign; pulse sometimes habitually intermittent; is said to be of dyspeptic origin; occurs frequently in old age, and then probably depends commonly on some affection of the heart; occurs also in affections of the brain; a very unfavourable sign, in the advanced stage of fevers, with great prostration; is said frequently to precede a critical diarrhœa. (Senac, Solano, Coxe.)


Gaseous Pulse: tumid—inflated—soapbubble: always indicates much prostration.

Undulating Pulse: a wave-like rising and falling of the pulse; generally large, soft, and feeble. When very small, it is termed creeping; highly dangerous.

A morbidly natural Pulse: occurs in malignant fevers; exceedingly unfavourable; can only be distinguished from a healthy pulse by the concomitant symptoms.

Shattered Pulse: pulse feels like a shattered quill under the finger—occurs in opium-eaters.

Obstructed Pulse: artery remains equally full during its diastole and systole.

The Compound Pulses. The principal are the synocha; synochus; synochula; typhoid; and typhus.

1. Synocha: hard, full, frequent, and strong; indicates high inflammatory excitement.
In healthy persons the pulse is generally full & large, so in plethoric persons, the pulse is of a contrary kind. In inflammation below the diaphragm the pulse is generally small; Inflammation above the diaphragm is generally full. Whenever in the beginning of acute disease the pulse is small & weak, we may in general set it down as a dejected one. Dr. Rush compared this pulse to a man overburdened by a great weight who only requires a part of the load to be removed in order to rise; so this pulse requires the abstraction of blood in order to make it rise. In old persons sometimes the pulse is naturally of an interrupted character; Dr. Bell has remarked this pulse in a person of this character to become regular always on the Suppuration of fever... Rose colored Pulse always and will just before Death.

In the obstructed Pulse the Arterial does not appear to have any Systole appears to maintainconstancy its Acceleration.
2. *Synochus*: full, round, active, but *not* hard: occurs in the hot stage of intermittents; in remittents, &c.

3. *Synochula*: quick, tense, small, hard, vibrating: occurs in sub-acute rheumatism—[[inflammation of the intestines, peritoneum, &c.] It is the hectic pulse.


5. *Typhus*: small, very frequent, somewhat quick: occurs in the advanced stages of jail, hospital, and other varieties of typhoid fevers.

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**CHAPTER IV.**

**GENERAL PROGNOSIS.**

The evidence of a *single* symptom not sufficient to give a *decisive* prognosis; the cause, the concomitant phenomena, the temperament and habits of the patient, &c. must be carefully estimated.

*The Countenance.* The more it varies from its natural expression, the more unfavourable. *Hippocratic countenance*—nose pointed, eyes sunk, temples hollow, ears cold and shrivelled, the lobes everted; skin on the forehead hard, tense, and dry; countenance pale, livid, or leaden: a fatal symptom, in the last stage of acute diseases. One eye becoming smaller than the other, a bad sign; still worse (Stoll) when objects appear less to *one* eye; lividity of eyelids, lips, and *aes nasi*, unless in chills,
very unfavourable;—pointed nose, and much motion of the nostrils during inspiration, bad.

**Attitude.** Constant position on the back, and sliding towards the foot of the bed, unfavourable; it betokens great prostration: same position, with open mouth, dilated pupils, or involuntary discharges, still worse. Insensibility, with mouth firmly closed and eyes fixed, a forerunner of convulsions; great desire to sit up, with dyspnœa, and livid countenance, fatal in pneumonic diseases; still more certainly fatal, when attended with a *good pulse*. (Baglivi.) Most favourable posture, that which approaches nearest to health; reaching into the air, and picking the bed-clothes, bad; always unfavourable, when visceral inflammations supervene to simple fevers; tumefaction of the abdomen, and tenderness to pressure, indicate danger; laborious breathing, with short, irregular, and interrupted acts of *inspiration*, is a bad sign; a still more dangerous sign, is exclusive abdominal respiration, attended with strong motion of the *ale nasi* by the respiratory act; sterterous breathing, attended with a rattling in the upper part of the chest, is highly dangerous, though not invariably a fatal sign; short and very accelerated breathing, always a bad sign; free and easy respiration, favourable; hiccough, in the advanced stages of fevers, indicates danger.

Constant wakefulness, or somnolency, is unfavourable—when great pain in the head, pulsation of the carotids, and a puffed red countenance, attend the latter, there is much danger. Unequal distribution of temperature—a sensation of cold externally, and of heat internally, are bad signs;—still more unfavourable, when a sense of *burning* heat on
the surface is attended by a feeling of cold internally.

*Intellectual and moral habits.* When these are changed; when old associations are interrupted; new antipathies formed; when the moral become profane and loose in their language, it is a dangerous sign.

*Partial insensitivity of the sensorial functions,* more favourable than great acuteness in this respect. Intolerance of light, with involuntary flow of tears, filmy, protruded, or very sunken eyes, very bad.

*The excretions.* Urine: black, chocolate-coloured, fetid—or watery and fetid, highly unfavourable; a good sign, when after having been crude and watery, it deposits a reddish sediment—still more favourable, when attended with a moist skin, of natural warmth. Suppression of urine, in protracted and violent cases of fever, a very bad sign.

*Perspiration:* when general, with no very low or high temperature of the skin, favourable; profuse, cold sweats, about the head, face, and on the arms and legs, highly dangerous; partial sweat, appearing in large drops, a bad sign; profuse, clammy and cold, always dangerous; and when attended with a very small and frequent pulse, fatal.

*Alvine discharges:* very liquid, frothy, green—bad signs; watery reddish discharges, resembling the washings of flesh, and attended with tympanitic swelling of the abdomen, a most unfavourable sign. The expulsion of wind with crepitus, a good sign. (Rush.) Bloody stools without tenesmus, in the latter periods of bilious, malignant, or other violent typhoid fevers, highly unfavourable; less dan-
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Geronous in strictly inflammatory fevers. Involuntary discharge of faeces, among the most unfavourable signs.

Vomiting. Black, flocculent discharges from the stomach, exceedingly dangerous;—less dangerous, when the black or poraceous matter is not flocculent but uniformly mixed with the other fluids thrown up. A rumbling noise in the stomach, when liquids are swallowed, a bad sign—never occurs in the early periods of fever, and generally attended with meteorism. Sudden and very forcible ejection from the stomach is unfavourable—it occurs in yellow fever. (Rush.) Very frequent vomiting, with great tenderness in the epigastrium, in fevers, a very unfavourable sign.

The tongue: covered with a brown or black crust, with deep cracks in it, dangerous; black and dry, with black sordes adhering to the teeth, highly unfavourable; a dark brown, contracted, hard, and shrivelled tongue, almost always fatal; tongue soft, moist, and light red, favourable; secretion of saliva, a good sign; difficulty of putting out the tongue, and then keeping it between the teeth a long time, without retracting it, is a bad sign—a total inability to protrude it, alike unfavourable; a red, smooth, and shining, or a pointed, dry, and red (round the edges) tongue, indicates considerable danger—it is a sign of strong gastro-enteritic inflammation. Total absence of thirst, with a dry and rough tongue, is a bad symptom.

Besides the appearances enumerated above, a variety of other circumstances demand attention, in forming an opinion as to the probable event of diseases. Thus, inflammatory fevers are generally less dangerous than remitting fevers; and these latter, less dangerous than typhus and malignant
Intermittent fever appears to be kept up by irritation either mechanical or other kind. An officer received a wound in one knee from a musket ball which left a fistula, opening violent Rheumatism supervened by remission the Rheumatism appeared to subside and an intermittent developed itself, this intermittent continued for above a year it would not yield to Bark, Quinine or any of the ordinary remedies, till an incision was made from the fistula opening down to the bone when a loose fragment (of the bone) was extracted after this the disease subsided & never recurred.
fevers. In general, the more a fever is connected with local inflammations—or rather, the more serious the local inflammations are, from the importance of the parts they attack, the more danger is to be apprehended. The type, too, must be taken into view. As a general rule, intermittents are less dangerous than remittents, and remittents less than continued fevers. The more irregular the type of typical fevers, the more unfavourable. The appearance and progress of what are termed the crises will also aid in forming a prognosis. Unusual or contradictory phenomena are unfavourable; when a patient declares himself well, at the same time that the symptoms indicate considerable disease, it is a bad sign.

CRISIS—CRITICAL DAYS.

The ancients observed certain regular periods in the course of many febrile diseases, at which prominent changes are wont to occur, accompanied by certain evacuations, and followed generally by temporary or permanent abatement of the symptoms. These evacuations, and their associated phenomena, are termed:

Crises. No febrile or noxious matter, as was once supposed, thrown off by these critical evacuations. Critical discharges the effect, not the cause of the melioration of disease which follows, or attends their occurrence. The doctrine of critical days generally discredited at present; there is probably good foundation for the doctrine. Crises divided into simple and compound; in the simple, the evacuation is made through one emunctory only—in the compound, through several. The most prominent precursory phenomena (perturbationes criticæ) of crises are: an increase of all the symptoms—watchfulness, chills, and rigors—tremour of the whole body—anxiety and jactitation—quick and irregular respiration—obtuseness of hearing—vertigo—coma, &c.
GENERAL PROGNOSIS.

There are certain days in the course of fevers upon which crises are particularly apt to occur. These are the critical days; crises occur however occasionally on other days. The critical days, according to Hippocrates, are the 3d, 5th, 7th, 9th, 11th, 14th, 17th, 21st, 27th, and 34th. According to Cullen, the 20th, not the 21st day, is the critical day—he acknowledges no critical day beyond the 20th. Critical days divided into perfect, secondary, and intercurrent. Galen regarded the 7th, 14th, 21st, 28th, or the septenary periods, as the true critical days; the secondary, are the intermediate days between these septenary periods, i.e. the 4th, 11th, 18th, 25th, &c. The intercurrent days are the 5th, 9th, 13th. (Galen.)

All forms of fever appear to have a tendency to some one of the principal types. A single tertian may be regarded as fever in its elementary form. In this form a paroxysm and a crisis occur on every odd day. Now if we consider a continued fever as made up of tertian paroxysms, protracted and running into each other, we perceive from its tendency to the original type, how the phenomena of crisis should occur on the odd days.

Salutary may be distinguished from insalutary discharges by the following circumstances.

To be salutary, they must be neither too copious nor too scanty; they must correspond with the nature of the fever,—haemorrhage from the nose is most salutary in inflammatory, and diarrhea, in bilious fevers—perspiration is more beneficial in catarrhal fevers than diarrhea. A discharge, from one emunctory only, seldom beneficial; perspiration is never salutary unless the urine at the same time becomes charged with a sedimentous matter; and vice versa.
The evacuations (critical) which usually attend the commencement of convalescence, are:

**Critical haemorrhages**: generally preceded by increase of arterial action; and salutary partly from the loss of the blood, and chiefly from the new arterial excitement by which they are attended.

It is owing to the previous excitement of the arterial system, essential to this kind of critical evacuation, that it cannot be substituted by an artificial abstraction of blood. This fact proves, that such evacuations do not, strictly speaking, produce the amendment which follows, but that they are effects or manifestations, of a previous salutary change in the vital actions.

Crisis by haemorrhage is chiefly confined to inflammatory fevers; occurs sometimes in typhus fevers; epistaxis, the most common critical haemorrhage—usually preceded by flushed face, red and suffused eyes—sneezing, ringing in the ears, &c.

**Critical sweat.** The most common crisis; must be general over the body, attended with a warm skin, and turbid urine. Its approach indicated by: a soft, full, wave-like pulse; a stinging or itching sensation on the surface; red, warm skin, and scanty urine.

**Critical discharge of urine:** must be copious; the morning urine best for inspection; critical urine exhibits, at first, a cloud floating in the upper part of the vessel—then a globular body about the middle—and finally a sediment; (Vogel, Richter, &c.) should be attended with a soft or moist skin; preceded by pains in the loins; frequent inclination to urinate; uneasy or burning sensation in the genital organs, dry harsh skin; thirst, and a soft and active pulse.
Critical alvine discharges: most frequent in bilious fevers—occur during the remission of fevers—are copious; signs of approach, a peculiar trembling of the under lip—stammering—a full active pulse, pain and noise in the bowels; discharge of wind—moist tongue—paucity of urine. (Richter.) Critical emesis, very uncommon.

By crisis, in the most general acceptation of the term, is understood that period in the course of a fever, at which a determination either to death or convalescence takes place, and in which therefore the fate of the patient is determined. This decision must necessarily always occur in the ultimate point of violence of the disease.

CHAPTER V.

OF THE GENERAL COURSE, TYPE, AND STAGES, OF FEVER.

Fevers divided in relation to their course into:
Acute, and
Chronic.

The former generally make their attack suddenly, and proceed through their course in a comparatively short period.

The latter commence less violently, and pass slowly through their course.

In general, the more violent the disease, the more rapid its progress.

The course of a fever may be divided into five periods.

1. The forming stage—the period between the impression of the febrifuge cause and the development of the fever;—distinguished by certain phenomena, called premonitory symptoms. Its duration very various; not always
attended by signs of deviation from health. In general, the more protracted the premonitory signs, the more protracted, or slow, will be the course of the subsequent fever, &c.

It is during the struggle between the system and the morbific cause—while the former is gradually yielding to, and passing under the dominion of the latter, that the premonitory symptoms occur.

The most common premonitory symptoms are: loss of appetite; irregular bowels; yawning, stretching; *malaise*: interruption of ordinary habits and appetites, such as disgust for tobacco, coffee, &c., thirst, nausea, eructations, dry skin, slight chills, healing up of old ulcers, &c. These symptoms show that the nervous system, the digestive organs, and the skin, are the first to suffer in the evolution of fever.

Some diseases have peculiar premonitory symptoms, as measles. A morbific cause may produce the premonitory symptoms, without being adequate to the full development of the disease.

2. *The cold, or second stage*: a sensation of cold almost invariably introduces febrile reaction; frequently no real subduction of temperature in the febrile chill; it depends therefore often on an altered state of sensibility to heat. Symptoms attending this stage:—skin pale, contracted, dry—shrinking of the surface—respiration irregular, oppressed, anxious—a small dry cough—tongue dry—head confused, pulse small and frequent—nausea and vomiting; the sensation of cold may be generally or partially diffused over the body. The relation between the violence and duration of this stage, to the ensuing stage of reaction, is direct; the former being violent and short, the
reaction will most probably be vigorous; weak and protracted chills usually followed by feeble reaction.

A chill occurring in an advanced period of a remittent, indicates that it is about altering its type or form; occurring in the advanced period of visceral inflammations, indicates the occurrence of suppuration; crises and metastases sometimes preceded by chills.

Hot, or third stage of fever: characterized by: increased heat of the skin; return of the natural fulness and colour of the surface; pulse full, vibrating, and vigorous; pain and throbbing in the head; eyes prominent, and very sensible to light; a dry skin; urine small, and high coloured.

The fourth period, or sweating stage: profuse and general perspiration; sedimentous urine; diminution of pains in the head, loins, &c.; pulse soft and full, &c.

The fifth period, or the period of convalescence.

The course of every fever is either:

1. Continued: very slight evening exacerbations and morning remissions. Total absence of remissions and exacerbations very rare, if ever.

2. Remitting: prominent and regular remissions and exacerbations.

3. Intermittent: regular paroxysms and perfect intermissions.

One paroxysm, with its intermission, constitutes its revolution. According to the duration of the revolution, fevers are divided into:

1. Quotidian, occupying 24 hours.
2. Tertian, do. 48 do.
3. Quartan, do. 72 do.
Mention fever continues for a longer time than usual 3 or 4 weeks & may always suppose it to be kept up by some local subacute inflammation. The more violent & protracted the pneumonic symptoms are, the more likely the succeeding fever to assume the low or typhoid character. In violent & short fever the pneumonic symptoms last but a short time 24 or 12 hours. Disease does not always follow the pneumonic symptoms. The vitality of the system is sufficient to overcome the disease impressions.

Dr. Cleeve has observed that Quotidian fevers generally commence in the morning about 10 o'clock. tertian commence about noon. quartan at evening. He has never seen an ague of the double tertian type from the commencement of the disease. They have all been of the single kind for some days before they have been connected.
Intermittents sometimes change their type into the remittent kind, by gradually prolonging the paroxysm so that at last they come into each other & constitute a perfect Remittent.

The appearance of healthy eruptions about the mouth is favorable (39). The fever after the development of these eruptions has a tendency or disposition to subside & has seen the fever to decline without medical assistance, delirium when it occurs only in the disease is to be regarded as a dangerous symptom. These intermittents which are accompanied by local inflammation are peculiarly obstinate & resisting to medical treatment. Quanta are more difficult to remove though they are less dangerous than either of the other varieties. Certain never arise into the Remittent form without its previously dwelling its type. Quanta may become Remittent by its tripling itself having one paroxysm daily.
The form which fevers assume in this respect, is called their type. There are therefore three principal types: i.e. the quotidian, the tertian, and the quartan types. Quotidiens generally come on in the morning; tertians, about noon; and quartans, in the afternoon.

Tertians divided into simple and double:

Double tertians: paroxysms occur daily; but the paroxysms of the alternate days are similar in violence, time of occurrence and duration, and differ in these respects from those which occur on the intervening days.

Intermittents rarely are of the double tertian type, from their commencement; they generally commence as simple tertians, and duplicate their type afterwards; the new or accessory paroxysms, generally milder than the original; double tertians generally return to the simple type, before they terminate; a change from the simple to the double type, is unfavourable.

Other varieties of compound types: tertiana duplicata;—the haemitritaeus;—tertiana triplex.

The quartan type is also susceptible of duplication. The double quartan has two paroxysms every fourth day. Authors mention triple quartans, three paroxysms occurring on every fourth day—these are very uncommon.

The difficulty of arresting the course of an intermittent, in general, is proportionate to the time occupied by each paroxysm.

Intermittents are said to be anticipating, when the paroxysm comes on earlier every succeeding recurrence—and postponing, when it occurs later at each return. When the paroxysm is postponed to about eight o'clock in the evening, it frequently does not come on until
the next morning. In like manner, the paroxysm of an anticipating ague, occurring at eight o'clock in the morning, will have its next paroxysm on the evening of the day preceding that on which it should happen. (Wilson.) Favourable, when the paroxysms are postponed; unfavourable, when anticipated.

Attypic or erratic fevers: no regular type; rheumatism—catarrhal fever.

Fever often change their type—the conversion of type seldom suddenly effected.

CHAPTER VI.
PARTICULAR FEVERS.
OF INTERMITTING FEVERS.

General Character. A succession of regularly recurring febrile paroxysms—commencing with chills, and terminating in profuse perspiration, with intervals of perfect intermission from fever.

Types: the quotidian, the tertian, the quartan, and complications of these primary types.

Stages: the cold, the hot, and the sweating stages.

Symptoms—Of the cold stage: lassitude, yawning; skin pale and shrunk; pulse small and frequent; rigors more or less strong; mind confused and inattentive—when violent, comatose; urine pale and crude; thirst great; respiration quick and anxious; lasts from fifteen minutes to several hours.

Hot stage: at first, nausea and bilious vomiting; skin hot and dry; face flushed and full; pulse
In this or paroxysms consist of 3 distinct stages, the cold, the hot & sweating stages.

In the cold stage delirium & coma sometimes occur, frequently the skin remains warm. While the patient complains of great cold, this is accounted for by an almost alteration of the nervous affections, conveying a wrong impression to the vesicatorium.

When the hot stage does not become fully developed the breathing does not become just & easy. In the sweating stage the urine deposits a red or white sediment.

Where the urine does not display the sediment the intervention will not be perfect, to induce cannot be given with so much advantage for these things are slight, that droppy fever occurs as a consequence of intermittent, when the liver or spleen having become inures to a certain degree, these cases are sporadic.

Quantum fever prevails epidemically, they exist as sporadic cases & bear the appearance of the diseases being detected from the congested organs in the cold stage of fever. May not the system reach in consequence of the blood being thus detached from the congested organs, the cold stage being continued & the sweating stage prolonged.
Dr. Clayborn, also Dr. Chiles, has seen intermittent cats terminated by an increased discharge of
urine, by discharges from the alimentary canal instead of their terminating in the sweating stage.
In some instances the cold stage has only
developed itself in one limb or part of the
body, the other parts being exempt from the
rigors shaking to other characteristic of the
cold stage.

In infants the disease frequently invades by
consequences that are soon apt to take place
during the cold stage, this stage in infants is
not fully developed and is frequently absent.
Dr. Clayborn delivered a baby of an infant which lady
for 30 days previous to delivering has been subject to
an intermittent. She was delivered about 1/2 hour
before the expected paroxysm at the end of the 3
least the paroxysm continued 4 and next regularly
through the course; the infant was at the same
time was attended with rigors cold which was fol-
dowed by a hot stage which was succeeded by
the sweating stage; the next day the infant was
not affected by a fully developed paroxysm but there
was evident traces of one.
full, frequent, and strong; respiration free and regular; head-ache—urine high coloured and scanty.

*Sweating stage*: profuse perspiration; pulse soft and moderately full; urine copious and *sedimentous*; a gradual abatement of all the symptoms of the previous stage, until it terminates in the state of *intermission*, or *apyrexia*.

*Anomalous symptoms*: the cold stage has been absent; sweat sometimes absent in the third stage, being substituted by other evacuations.

*Masked Agues* (Febres Intermittentes Larvæ.*) Intermittents under various assumed forms: as epilepsy, mania, hemicrania, tooth-ache, cramp in the stomach, dysentery, cholera, &c. *Diagnosis* of masked agues: their periodicity; the cotemporaneous prevalence of intermitting fevers; slight sensations of cold, preceding the attacks; gentle perspiration, with *turbid* urine attending their disappearance.

In infants, the paroxysm sometimes commences with *convulsions*. *Distinct rigors*, not common in infants.

Intermittents divided into the:

*Inflammatory*,
*Congestive*,
*Gastric*, and
*Malignant*.

1. *Inflammatory Intermittents*: of frequent occurrence: quotidiens more apt to assume this character than tertians, and tertians than quartans. Occur most commonly in young and plethoric subjects, and in the spring and winter seasons; rigors strong in the first, and action intense in the second stage; intermission imperfect, the pulse retaining a preternatural quickness and tension, and the thirst
and heat of the surface remaining greater than natural; often slight pectoral affections. The *prime vix* seldom much loaded with bile and saburral matter; little or no manifestation of intestinal irritation.

2. The Congestive variety: not common; occurs in persons of debilitated habits of body—in the irritable and nervous. *Cold stage*, very protracted, attended with deep-seated pain in the head, vertigo, syncope, a sense of weight in the breast, coma, and a small, trembling, weak pulse. *Hot stage*, imperfectly developed—the system remaining oppressed; the surface cool; the breathing confined and anxious; countenance pale; pulse frequent, small, and somewhat tense; and a sense of heat internally.

3. The Gastric variety: the majority of our autumnal intermittents are of this character; they are attended with strong marks of irritating matters in the *prime vix*; there is nausea, bilious vomiting, bitter taste; weight and fulness in the epigastrium; great pain in the forehead; foul tongue; quivering of the under lip; countenance, and tunica albuginia, tinged with yellow; deep red urine, staining linen yellow; urgent desire for acid drinks.

4. Malignant Intermittents. Rapid in their course—sweat, in the third stage, generally very copious and fetid; hæmorrhages from the nose, bowels, gums, &c.; petechia; and other symptoms denoting malignity. (Alibert.)

Intermittents occasionally cure other affections; such as, cutaneous eruptions, hysteria, gout, asthma, hypochondriasis, and epilepsy. (Fordyce, Vogel.)
In relation to the natural duration of intermit­
tents, it would appear that quotidians, when
left to themselves, have a tendency to termi­
nate on the 14th; tertians, on the 21st; and
quartans, about the end of the 6th week.

Prognosis. When simple intermittents prove
fatal, it is generally in the cold stage—death
then occurs in the way of apoplexy; most
dangerous in weak and cachectic habits of
body. Postponing more favourable than an­
ticipating agues; scabby eruptions, re-appear­
ance of suppressed discharges, &c. favourable;
integrity of the digestive functions, a good
sign; change from the quotidian to the ter­
tian, favourable. Delirium more unfavourable
than mere coma; occurs in the worst forms of
the disease. Tumid and painful abdomen,
with oppressed respiration, hiccough, &c.;
colliquative diarrhoea; bloody urine; red and
suffused eyes—are bad signs. Great debility
during the intermission, with œdema of the
legs and feet, restlessness, languor, sighing,
dry tongue, or bilious vomiting, very unfa­
vourable.

Circumstances peculiar to the various types: Cold
stage longer in tertians than in quotidians—
hot stage longer in the latter than the former;
&c. &c.

CAUSES OF INTERMITTENTS.

The principal—almost exclusive—cause of inter­
mittents, is marsh miasmata, called by the Italians
malaria.

Intermittents are the first grade of miasmatic fe­
ers—most common during the autumnal months,
in the marshy districts of temperate climates. The
operation of miasmata is favoured: by sudden
changes of weather; dampness; fatigue; and whatever debilitates the body.

Miasmata often remain dormant in the system for a long time.

Other causes:—worms, and other irritating substances in the intestines; suppressed habitual discharges, &c.

**Proximate Cause.**

Spasm of the extreme vessels (Cullen's doctrine) objected to.

Irritation and inflammation of the mucous membrane of the intestinal tube, objected to. (Broussais.)

**Treatment.**

Treatment divided into that which is proper during the paroxysm, and that which is to be used in the intermission.

The former is palliative, the latter curative.

**Treatment in paroxysm.** Cold stage: mild and warm diluent drinks. In debilitated and nervous subjects, external and internal stimulants, particularly artificial heat. In vigorous subjects, however, such practice is by no means proper. *An emetic* given in this stage, one of the best means to shorten its duration. *Opium*, administered just before or soon after the accession of the paroxysm, often highly useful in moderating the fit. (Trotter.)

Compression by the turniquet, has been found useful to put a stop to this stage. (Kellie.) Its *modus operandi* explained.

**Treatment in the hot stage.** The object is to moderate the violence of the febrile reaction, and to hasten the supervention of the sweating stage. The remedies employed for this purpose, are: bleeding in cases of violent re-
As Miasmata become more diluted by atmospheric air, the breeder that is produced by it, the more Contagious the Miasma; the more violent, malignant will be the subsequent disease. Miasmata may lay dormant for many weeks after the system has become impregnated with the seeds of the disease, until by some deviation, debilitating cause, the disease has an opportunity of developing itself. It appears to lie in wait like an opium, watching its opportunity to seize its victim.

REMOVING intermittent fevers in the cold stage. It is palliative. When febrile and feverish, a warm bath relieves the cold stage. They should be given in sufficient quantities to produce full vomiting. The application of the tourniquet has put a stop to the cold stage in 2 minutes. When applied before the accession of the perspiration, it effectually prevents its occurrence. It should be applied to one thigh and the arm of the opposite side. There is the idea that the tourniquet acts by cutting off the nervous influence from these limbs and thereby concentrating it enabling the system to reach to resist the morbid impressions. The practice lately adopted in one of the London Hospitals.
is to bleed in the Cold Stage which I have done. In any stage frequently and to the perspiration & radially cure the disease.

In the hot stage, sweating frequently induced by a draught of cold water it should only be allowed when the skin is dry and the pulse full. When Bilious vomiting occurs in this stage and is excessive. Quinine may be given to check it. This has been recommended by Dr. in this state. An intermittent of an inflammatory character. Quinine will not produce it, good effects. Camphor, Hoffman, Anodyne 6 or 8 drams. mephitic in saline doses the best to check excessive vomiting. Intermination, when the fever is of the inflammatory character. The common tonics will produce but little good. the inflammatory disposition must first be cured, before tonics will be of advantage. The gastric modification is the one usually met with in this vicinity. He gave Calculus Bogen every hour till 12 p.m. an taken after which he gives 20 per Salb. In Quinainas the Bark should be given immediately after the paroxysms. In tertian it need not be given so early in the intermission. In Quinainas the Bark quinine is should not be used till about 12 hours before the attack paroxysm.
action, cool diluent drinks, and the usual antiphlogistic remedies. A draught of cold water, when the skin is very dry and hot, is both grateful and beneficial, predisposing to perspiration. Emetics not proper in this stage; Excessive vomiting best checked by opium and the effervescing draught. Opium highly recommended in this stage, by Dr. Lind; injurious in intermittents of a marked phlogistic character; highly useful in cases of feeble reaction. Not often necessary to use remedial treatment, in this stage.

_Treatment during the intermission._ It is in this stage, that the radical cure of the disease is to be attempted. In prescribing with this view, attention must be paid to the four modifications described above.

_In inflammatory intermittents_, the febrifuge tonics are not to be used, until the phlogistic state of the system has been reduced by a strict antiphlogistic treatment.

_In the congestive and malignant modifications_, stimulants and tonics must be resorted to, early and freely.

_In the gastric modification_, emetics and cathartics are important preliminary remedies.

_Cinchona_—the most efficacious tonic febrifuge we possess—must be employed during the _apoplexia_. Not to be employed, where a phlogistic diathesis prevails—that is, where the pulse is tense and quick, with a feeling of general uneasiness, head-ache, dry and warm skin, are present in the intermission; in such cases, antiphlogistic measures must be premised. The bark to be promptly and largely given, in cases of great weakness, or in such as are of a malignant character. Authors
express contradictory opinions, with regard to the necessity of purgatives and emetics, as measures preparatory to the use of the cinchona. They are very generally useful, and should be premised; not always indispensable, however—more essential in the young and plethoric, than in the infirm and aged. The cinchona has no peculiar tendency, as was once and by some is still supposed, to produce visceral indurations; these are consequences of the improper use of the bark—in other words, of its employment in a prominent phlogistic state of the system—other tonics will do the same. The existence of visceral obstructions forms an objection to the use of the bark; a mild mercurial course must be premised—or the bark may be given in conjunction with mercury. From an ounce to an ounce and a half, will in general suffice for a cure—when it purges, give opium or kino. When much acidity exists in the primæ vīæ, combine it with an alkali. The bark often advantageously combined with aromatics, as serpentaria, cloves, calamus aromaticus, black pepper, capsicum, &c. &c.

Sulphate of Quinine, a most valuable preparation of cinchona; given in doses of from one to three grains, every one or two hours; sometimes purges, for which opium is the proper remedy. A variety of other vegetable tonics have been recommended in this disease; as Angustura bark, cornus Florida, Leriodendron tulipifera, aristologia serpentaria, oak bark, the various species of willow, horse chesnut, and the officinal tonic bitters. Coffee, recommended by Richter and Grindel. Tela arane-arum, a useful remedy.

The Muriate of Ammonia, in combination with
Intermittents are more apt to relieve the
Bark & their tincture have been used without
the previous exhibition of purgatives or emetics
Bark combined with small quantities of mercury
is one of the best means of relieving indurations of
the spleen. Bark sometimes produces a constipated
state of the bowels, Rhubarb should then be contra-
verted, the Acid decoction of Bark in frequent cases
of the most acceptable methods of exhibiting it Bizi of
elixir vitriol to 1 oz. Bark. It is sometimes necessary
to exhibit Bark in the form of injection, proper
in cases infant. — Solution of Quinine a few
rootlets of elixir vitriol to dissolve the Quinine 1/2 oz.
Syrup. Tela Arancaria and produce in
some cases a species of feverie or manie of the most
delightful soothing and calming kind. It somewhat
resembles in its effect the vitrious oxide.

Muriate of Ammon. Comb. with Bark. He is
afraid of using in cases attended by cerebral obstruc-
tions, especially of the liver. He thinks it quite
equal to ammoniac in these cases. He is fully prot-
ected that Muriate of Ammon has the effect of
removing schimies in motion of enlargement of the glands

20 or 30 prs B or 1/4

Muarnate of Ammon 1/8, logumac

R. Gleyser — 36

unins the

taste of this article
Sulphur Linctus 2 or Cæsarea pepper 1 dram, will take one every hour, with this Compound he has at all least quiet, as much relief as with the gains in the Cure of intermittent. A FECIE although a Topical application is very in the majority of Cases, yet sometimes, it produces disagreeable consequences, it should not be used in Constitutional persons, or those than in Virulent Congestion, or inflammatory diseases: it may be given 10 drops with 10 or 15 drops of Lactacaudic every 12 hours, it causes, when used for some length of time, disagreeable effects. Dr. Cullen has used it for Rheumatic with success in relieving the pain or disease. Potassium of Iodo is used in this disease. Black Pepper is a remedy which has been used for a long time to cure intermitten. The pepper is given before the effects of pancytism will as effectually prevent it as Sulphur Phosphorus. The Indication has a powerful influence over this disease. A quick Cure this is seen in many instances by having around the patient a Knife to keep away the want of spirit or be called at who produce the disease) about the time of the expected pancytism. He has numerous indications of the time—Sublimate is also a Topical changing of the foot by giving a drink of I or 2 Tartar Emetic Molecules in 1 part of water. Made a Cordial Drink.
tonic bitters, highly useful, according to Rich-ter, in agues attended with visceral obstructions.

Arsenic, highly efficacious; best adapted to cases attended with rather a full, robust, and un-irritable habit,—a moderately full, but soft and regular pulse,—and unaccompanied by local congestions. In debilitated, cachectic, or scorbutic habits, often injurious; improper also in phthisical habits. Should be given in as large doses as the stomach will bear; apt to produce dropsical swellings. From ten to fifteen drops of Fowler’s solution, with ten or fifteen drops of laudanum, every four hours.

Prussiate of iron has been given with consider-able success. Dose from five to eight grains every two hours, for an adult.

Sulphate of zinc, an article of very considerable efficacy, in the treatment of this disease. In combination with capsicum, I have found it almost as certain a remedy as the quinine. I give it according to this formula: R Sulph. zinci, gr. x. Pulv. capsici, 3jj. Conserv. rosar. q. s. M. in pil. No. xl. dividend. S. one every two hours.

The power of the imagination over the system, is often strikingly illustrated in its effects on this disease;—the source of the occasional efficacy of all the various charms, amulets, &c. so frequently resorted to, against this disease, by the ignorant and superstitious.

Intermittents exceedingly apt to relapse; re-lapses particularly favoured by exposure to a damp and cool air; by errors in diet; the de-pressing passions, &c.

Intermittents apt to give rise to secondary af-fections, the most common of which are:
INTERMITTING FEVERS.

ædema of the feet; enlargement and induration of the spleen and liver; jaundice; dropsy;—sometimes hemicrania, vertigo, epilepsy, and phthisis.

CHAPTER VII.
REMITTING FEVER.

Character. Fevers whose symptoms suffer manifest and regular exacerbations and remissions, but no perfect intermissions.

Symptoms: Symptoms of the forming stage, similar to those of intermittents. When the disease is fully developed, there are, pains in the head, back, and lower extremities; an icterode tinge of the eyes; nausea; sometimes bilious vomiting; fulness and tension in the praecordia; pulse full, frequent, and rather soft; tongue foul, at first white, afterwards brownish; taste bitter. In the course of about twenty-four hours, a remission of these symptoms takes place; after a short remission, the febrile symptoms rise again; and after a certain period, again suffer more or less remission. This answers to the mild form of the disease.

The type of remittents is generally the double tertian; sometimes the quotidian. The exacerbations of quotidian remittents commonly begin about nine or ten o’clock in the morning; those of tertians, considerably later.

Remittents sometimes assume a very violent and even malignant character: the febrile heat is intense; thirst excessive; head-ache, and
pains in the loins, very violent; great anxiety of feeling; distressing sense of fulness in the epigastrium. In twenty-four hours, nearly a complete intermission ensues. A second and more violent paroxysm soon comes on; the eyes become red and watery; the epigastric distress is horrible; there is nausea, with constant retching or bilious vomiting. Another remission occurs, followed by a third exacerbation, which often terminates in death, or a favourable crisis. The disease sometimes assumes more of a chronic character; and in this case, great prostration ensues, with almost constant delirium; a quick, irregular, and frequent pulse: in some instances, the pulse becomes almost natural—a sign of great danger. Besides the foregoing symptoms, the following occur, in violent cases of this form of fever: tongue clammy, fetid, black; eyes red, watery, or dry; urine brown, blackish, offensive—sometimes wholly suppressed; alvine discharges watery, red, black, or bloody; abdomen tympanitic, petechiae, haemorrhages.

In the temperate climates, and in situations not abounding in materials for the production of miasma, remittents are generally mild and regular in their course. In proportion as we approach the tropical regions, we find the disease assuming a more violent and anomalous character.

**Remote Cause.** Marsh miasmata the principal cause of this form of fever; other causes may produce it,—as worms, and other irritants, acting on the alimentary canal.

**Proximate Cause.** Irritation, or sub-acute inflammation of the mucous membrane of the intestinal tube, with prominent hepatic derangement.

In some cases, prominent intestinal irritation is connected with an abundant secretion of bile; in
REMITTING FEVER.

others, the intestinal irritation is connected with great congestion and torpor of the liver, little or no bile being thrown into the bowels during the early period of the disease. To the former class of remittents, we may therefore apply the term GASTRIC; and to the latter, that of HEPATIC.

GASTRIC MODIFICATION; characterized by:
bitter or putrid taste; tongue covered with a thick yellowish slime, which by degrees becomes dry, cracked, and blackish; disgust for every kind of food; urine jumentose; distress and weight in the stomach; abdomen tense and tender; pain in the loins and knees; intense pain in the forehead; distinct remissions and exacerbations.

HEPATIC MODIFICATION: the most rapid and dangerous form of the disease; characterized by: intense febrile heat during the exacerbations; delirium; fulness, tension, and pulsation in the right hypochondrium; tongue at first clean; great irritability of the stomach; continued vomiting of a glairy fluid; the skin becomes icteric; towards the termination of the disease, the liver, in most instances, pours out an abundance of dark coloured bile, which is evacuated by stool, and sometimes by vomiting. The stools, in such instances, are black and pitchy.

The diathesis of remittents always essentially inflammatory, though in some violent instances much nervous depression and debility exists. Dr. Good calls these asthenic remittents,—I prefer the term typhoid.

TREATMENT. The indications are: 1. To moderate the action of the heart and arteries. 2. To remove the irritating contents of the bowels, and moderate intestinal irritation. 3. To restore the healthy functions of the liver. To answer these intentions, we employ:
1. **Bleeding.** Not often necessary, in the milder cases of our autumnal remittents. Indispensable, when the pulse is full, vigorous, and hard, the skin very hot and dry, and the head-ache intense.

2. **Purgatives.** Mild mercurial purgatives, of primary importance. In mild cases, with little gastric irritability, an emeto-cathartic often useful in the commencement; inadmissible, however, in the higher grades of the disease.

There are no remedies more useful in the treatment of remittents, than purgatives; and yet there are perhaps no other medicines so frequently employed to an injurious extent. *Violent and irritating cathartics*, when frequently administered, seldom fail to excite a degree of irritation in the mucous membrane of the alimentary canal, which but too often brings on a train of symptoms of the most dangerous and fatal character. The thin watery stools, of a muddy or reddish colour; the tympanitic state of the bowels; the abdominal tenderness; the suppression of urine, &c. which are sometimes observed in the advanced stages of this disease, are generally the result of the imprudent employment of *active cathartics*. Although I would strenuously protest against the frequent employment of active cathartics during the course of remitting fever, I would by no means proscribe them wholly (as is done by Broussais) as remediate means in this form of fever. In the commencement of the disease, one or two active purgatives are not only admissible, but, according to general experience, decidedly useful. Subsequently, however, the *milder laxatives* only ought to be employed; and these are indispensable, throughout the whole course of the disease.

**Diaphoretics, &c.** Nitre in combination with tartarized antimony and calomel, generally useful in the early stage of mild remittents; improper, where there is great irritability of the stomach; injurious, also, when it excites much purging. *The saline effervescing draught* an excellent medicine; *spiritus mindereri* also useful: these two latter articles, particularly useful to allay gastric irritability.
CALOMEL. An important remedy in remitting fevers. In the commencement, given with a view both to its purgative and constitutional effects; should be early and regularly given, until its specific operation becomes manifest; never to be continued until ptyalism comes on; strong mercurial excitement, injurious. In the advanced periods of the disease, the mercurial influence generally detrimental.

In the high or malignant grades of this disease—that which I have termed hepatic, from the engorged and inactive state of the hepatic system—emetics, emeto-cathartics, and strong purgatives, useful in the commencement of the milder forms of the disease, are altogether inadmissible. The first object is to allay gastric irritability, which is generally very great. For this purpose, blood-letting is the most important measure; sinapisms to the region of the stomach, are good; a draught of cold water has been recommended; the warm bath after venesection; potio Riverii. Saline Draugh.

When the irritability of the stomach is in some degree subdued, Calomel is an important remedy; it should be given in doses of from ten to twenty grains every four or five hours, until the evacuations become bilious. If the calomel do not prove purgative, mild laxatives must be occasionally given with it. Two or three alvine evacuations daily are indispensable, so soon as the liver has been excited to action by the calomel. Nitre, and the antimonial preparations, are objectionable. Acidulated drinks are salutary. Physicians do not agree with regard to the propriety of using tonics during the remissions. Lind, Clark, Balfour, and others, strenuously contend for the vigorous employment of bark. Johnson,
REMITTING FEVER.

Burnet, and others, condemn this practice as pernicious.

My own views on this subject are, that the cinchona may be used with advantage, during the remission, where there are no violent visceral congestions, and where the liver has resumed its proper action. As long, however, as the liver remains engorged and inactive, the employment of the bark can seldom fail to do injury. After the bile makes its appearance in the alvine evacuations, and a complete remission occurs, the liberal use of the sulphate of quinine will generally prove decidedly beneficial.

YELLOW FEVER.

Synonyms. Typhus Icterodes; Maladie de Siam; Bul-lam fever; Vomito prieto; Causus.

Symptoms. First stage: faintness, giddiness, slight chills; then sudden evolution of intense febrile reaction, with severe pain in the head; inflamed eyes; intolerance of light; dry and burning skin; great thirst; pain in the loins and lower extremities; tongue covered with a whitish mucus, or but little altered from its healthy aspect; nausea and vomiting; transient and partial sweats. This stage lasts from twenty-four to sixty hours.

The disease sometimes commences with sudden loss of muscular power, and depression of nervous energy—the patient falling down, as if stunned by a blow.

Second stage. With the exception of vomiting, all the symptoms abate; the pulse sinks to the natural standard, the heat of the skin becomes reduced, and the patient expresses himself much relieved. The vomiting however continues, the fluid ejected containing membraneous flocculi; the desire for cold water is urgent, but when swallowed, is immediately
rejected; the albuginia, and the skin of the neck and breast, acquire a yellow tinge. This stage lasts from twelve to thirty-six or forty-eight hours.

Third stage. Pulse sinks; frequent and forcible vomiting; matter thrown up of a black colour, resembling coffee-grounds suspended in a glairy fluid; an acrid or burning sensation in the stomach; diarrhoea of green or black matter; whole surface of a dirty yellow;* hæmorrhages; violent delirium; hiccough, coma, insensibility, convulsions, death.

"Soreness in the throat and oesophagus; heat and acrid sensation in the stomach; urgent thirst; hunger; violent delirium; despondency; enlargement of the blood-vessels, and red-yellow colour of the white of the eye, either singly or collectively, indicate extreme danger." (Johnson.)

Appearances on dissection. A black viscid fluid in the stomach; mucous membrane of this organ inflamed, and covered with gangrenous spots; sometimes large portions sphaelated; small intestines inflamed; colon generally sound, but often contracted; concave surface of liver inflamed.

Cause. The effluvium generated by animal and vegetable matters, in a state of putrefactive decomposition, its common remote cause—hence its almost continued prevalence in the marshy districts of intertropical regions.

This opinion is disputed by many; but a great majority of those whose knowledge on this point is derived from personal observation, maintain its correctness.

Europeans, arriving in hot climates, where the disease is endemic, almost exclusively obnoxious to it. Persons having once had the

* Many cases are not attended by this yellow hue of the skin.
In the employment of Potas we frequently bring on a
painful Watery & cold Stools, we should then lay aside the Potas & give down powder
The Coors of the Malignant Bilious remittent, when
violent vomiting occurs, small doses of Colombe, to
relieve the congestion of the Liver which is always,
present when the Stomach is then irritable. Simples,
to the Glower will relieve the irritability of the Stomach.
Carbonated Water is also one of the most useful
applicable agents to quell this irritability.

Potas effusion have been recommended in this
variety of fever. Useful after the hepatic congestion
has been subdued & when the Skin is dry to bathe
with delicious Yellow Fever.

This disease when it attacks young & robust
men, who have not been married & the Channel is
developed itself in its most violent & Malignant
forms is frequently running to Court & terminating
in death in the Course of 48 Hours.

The approach of the disease may be distinguished by
an experienced practitioner by the appearance of a
sickly Countenance. On dissection the
Stomach & Liver are found to be the organs on which
the disease has principally operated, for there
is frequently lesion & necrosis of the Viscera
East of the Stomach.
The cause of Yellow Fever is doubtfully known. It may come from decomposing vegetable or animal manner, but it always occurs in low situations, where there is collection of filthy. Dr. Ebell thinks that the cause of Yellow Fever is the same as that which produces the Bilious & Recurrent fevers of our Country. The Yellow Fever requires for its development a high degree of temperature. Yellow Fever always appears at the same time that Bilious Fever prevails. An argument that Bilious & Recurrent fevers are the same diseases, only in different degrees of violence, is that in one of the seasons when Yellow Fever prevailed in Philadelphia, in the commencement of the season, the disease was in the form of Bilious Remittants, as the season advanced it increased in heat, the disease became more malignant, the eventually Yellow Fever was produced and in many instances, Bilious Fever terminated by Yellow Skin & Black Vomiting, in other cases, Yellow Fever accompanied by Yellow Skin & Black Vomiting terminated in a tertian fever which resembles Yello
to a few ounces of pork. This Disease is
not contagious; it always requires for its
development a certain & long continued high
degree of temperature, (So does our Bilious, & remittent
fevers,) there is no contagious disease or death
for measly, or that require for their production
any previous circumstances, this kind, they occur
under every degree of temperature,
Storms Rain always produce a Remission
of the recurrence of this disease; they produce
the same effect on our Bilious & Remittent
fevers. He believes that the Miasma which
produces may be produced in ships & brought
in them to healthy ports & there produce the dis-
case but only in those persons who have been exposed
to the air of the ships. The fact which almost prove
beyond a doubt that yellow fever is not contagious.
In the Circumstances attending the Shep-ter Brothers
which came into Boston from a port where the
Yellow Fever did not prevail, when the hatches
of the ships were opened, the cargo removed, all the
persons, who were concerned in unloading the vessels,
sickened, and in the course of a few days yellow fever was com-
pletely developed in a most malignant form; it did not spread
to other persons but was confined to those persons who had been
exposed to the air in the hold of the vessel. The examination of the
Continued Fevers. In these fevers there is always an inquisitive exacerbation, the remission almost always occurs in the morning, the exacerbations generally occur in the evening. Athenie or Inflammatory Fever. The causes which occasion Athenie or Inflammatory fever is a feeling of nervous energies. Those which produce typhus or Athenie Fevers depress these nervous energies. The tongue in Inflammatory or Typhus fever is at first covered with a white fur afterwards becoming covered with a brown mucous Delirium when it occurs is generally of a violent kind.

Inflammatory mostly terminate, or before the 7th day, fever being protracted 14 days. If medicine Constitution of the atmosphere give rise to epidemic inflammatory fever as pneumonia, influence.

SS to distinguish inflammatory from Athenie diarrhea when we cannot decide from the feel of the pulse whether depletion may be continued properly and to advantage, feel the pulse in a natural position to note if then raise the arm as high as possible and mark the difference in the pulse under these circumstances. Deals with as much or nearly the same force we may bleed with safety, but if it plays strongly is improper. Cathartics anteriorly are not in the proper most useful internal medicines.
The influence of the remote cause, is promoted by, intemperance, excessive fatigue in the sun; exposure to the damp and cool night air, &c.

Not contagious. Many assert that under certain circumstances, this disease is contagious;—some maintain its unconditional and essentially contagious character.

Black Vomit: not bilious matter; appears to proceed from sanguineous transudation in the stomach. The liver is torpid and congested, the biliary secretion being deficient. The yellow colour of the skin is probably the result of a vicarious secretion of bilious matter into the subcutaneous texture. Different opinions on this subject.

Treatment. Much diversity of sentiment in relation to the treatment of this disease. It appears, however, that the weight of good authority is in favour of: full bleeding; mercurial purgatives; cold affusions, and applications to the head; the free use of mild diaphoretic or acidulated drinks—in the first period of the disease. Prompt and decisive bleeding is particularly beneficial in the commencement of violent cases, where the pulse is full and hard. In the milder cases, it may commonly be advantageously omitted.

In the second stage, mild aperients; diaphoretic and cooling drinks; enemata; calomel, with a view to its constitutional and aperient effects; cool affusions, with tonics and stimulants, if the pulse becomes feeble.

In the third stage, stimulants and tonics; enemata; mild drinks.
CONTINUED FEVER.

The usual saline diaphoretics are of little or no service, in this form of fever. The vigorous employment of cinchona, or quinine, is strongly recommended by some, during the remissions.

CHAPTER VIII.

CONTINUED FEVER.

Continued fevers are either:

*Sthenic,* or

*Asthenic.*

The former are diseases with irritated vascular excitement—the vital energies being unimpaired or increased; these are usually called inflammatory, or fevers with a phlogistic diathesis.

The latter are diseases with irritated vascular excitement, and an impaired state of the vital energies; these are the typhous fevers.

INFLAMMATORY FEVER.

*Synonyms.* Ardent fever; febris irritativa; synocha; febris vasorum.

*Character.* Vascular excitement vigorous; pulse full, hard, and strong; heat of the skin intense; urine scanty and high coloured; thirst great; eyes red, incapable of bearing the light; pulsating pain in the head; sensorial powers little affected.

This form of fever is seldom introduced by a long train of premonitory symptoms; and in this, it differs essentially from typhus. The heat of the surface, of the kind called burning.
INFLAMMATORY FEVER.

Dellrium not a common symptom. The pulse seldom beats more than 110 in a minute. The blood, when drawn, separates rapidly into its constituent parts—the crassamentum contracting into a firm mass, on the top of which a yellowish layer of febrine collects, forming what is termed the buffy coat, or inflammatory crust.

A somewhat similar covering is sometimes formed on the blood of typhous patients. The inflammatory buff has a uniformly yellowish-white appearance. That which is sometimes seen on the blood of typhous patients, presents an iridescent appearance—reflecting the colours of the rainbow, when held in certain positions. It is also much more brittle than the former, in its texture. (Richter.)

Inflammatory fever never very protracted in its course; generally terminates in some manifest critical discharge; haemorrhage from the nose, and increased flow of sweat, the most common. Most apt to occur in persons of robust and vigorous constitutions, and between the ages of twenty and forty.

Cause. The most common causes are: Atmospheric vicissitudes; violent passions; wounds and other injuries; a peculiar atmospheric constitution. Sudden suppression of perspiration by cold, is however the most common sporadic cause. Hence, inflammatory fevers most prevalent in cold and variable climates, or during the spring of temperate latitudes; more prevalent also in elevated dry and sandy situations, than in localities of an opposite character.

Diagnosis between sthenic and asthenic fevers sometimes very difficult.

The constitution and habits of the patient, the nature of the predisposing and exciting causes, will aid us in the diagnosis. In very doubtful
cases, we must have recourse to the *indices ex nocentibus et juvantibus*—the indications drawn from the effects of remediate agents.

**Prognosis.** *Simple* inflammatory fever, the least dangerous variety of continued fevers; when attended with visceral inflammation, dangerous; the danger being proportionate to the violence of the local inflammation, and the importance of the organ inflamed. When protracted, it is apt to assume a *typhoid* character. A sudden and copious discharge of *limpid* urine, or thin watery alvine discharges, are unfavourable. Slight haemorrhage from the nose, a moist and soft skin, pale and *turbid* urine, are favourable signs. Delirium not generally a bad sign.

**TREATMENT.** The principal indications are: to moderate the action of the heart and arteries, and to restore the healthy functions of the cutaneous exhalents. The remediate measures are:

**Blood-letting:** this is the most important remedy. It should be *early* employed, and to the extent of producing a *decided impression on the system*. One decisive bleeding will do more good than double the same quantity of blood drawn at several smaller bleedings. To produce a proper impression without too great an expenditure of blood, the bleeding should be from a *large orifice*. Repeated small bleedings, during the course of a fever, are more apt to prostrate the system, than the same quantity of blood drawn at one or two bleedings in the beginning. The pulse must be our principal guide, as to the quantity and repetition of bleeding. The inflammatory character of the blood, *generally*, an indication of the further necessity of bleeding. This indi-
cation cannot always be relied on—it is fallacious in rheumatism, in which the blood will often exhibit the buffy coat, after bleeding has been carried to the utmost allowable extent.

Cathartics. Useful not only by evacuating the irritating contents of the bowels, but also by their direct depletory effects. The saline cathartics are the best; besides their evacuating effects, they have an antiphlogistic operation, analogous to nitre. Violent and very frequent catharsis, injurious.

Emetics: seldom proper in inflammatory fevers.

Diaphoretics are important remedies in this variety of fever. Of these, nitre and antimony are the most valuable—they are best given in combination; 10 grains of nitre with \( \frac{1}{10} \) of tart. ant. every hour or two. When the bowels are torpid, a grain or two of calomel may be added. Care must however be taken, not to continue the calomel so as to produce ptalism—this effect could not fail to do harm. When the nitre excites gastric pain and watery purging, a few grains of pulv. ipecac. compos. may be advantageously combined with it. These effects are also lessened by giving the nitre in some mucilage.

Antimony, peculiarly beneficial in febrile diseases; independent of its diaphoretic effects, it has a direct sedative operation; it appears, also, to act as an alterative, that is, to change the action of the capillary system generally. Its good effects in fevers are independent of the nausea which it is apt to create. Cullen, however, was of a different opinion. The Italians employ it in large doses, as a contrastimulant; in other words, as a sedative.
Other diaphoretics employed in sthenic fever, viz. the saline effervescing draught; spiritus mindereri; muriate of ammonia; sweet spirits of nitre. These are useful, after the febrile excitement has been somewhat subdued.

During the whole course, an antiphlogistic regimen must be rigidly observed.

The antiphlogistic plan of treatment consists not only in the application of such remedies as are calculated to reduce the actions of the system, but also in the careful removal of every thing which has a tendency to irritate or excite in an inordinate degree. In inflammatory fevers, the irritability of the nervous and sanguiferous systems is morbidly increased; and hence, even the ordinary stimulants of light, sound, food, &c. become a source of increased irritated action. The influence of these must therefore be avoided, as much as circumstances will allow.

**CATARRHAL FEVER.**

**Character.** A sthenic fever, with prominent irritation of the mucous membrane of the respiratory passages.

**Symptoms.** At first, lassitude and slight chills; then more or less febrile reaction,—attended with a frequent, quick, and somewhat tense pulse; severe pain in the head, face, or jaws; sneezing, dry cough, and hoarseness; a watery discharge from the eyes and nose; eyes red and painful; transient stitches through the chest; often rheumatic pains in the back and extremities. There are considerable remissions in the morning, and exacerbations in the evening. During the first three or four days, the urine is high coloured, and free from sediment. About the fourth or fifth day, the febrile symptoms begin to decline; the urine then becomes pale and turbid, and the skin
uniformly moist; the discharge from the nose and bronchia becomes thicker and yellowish.

**Causes**, atmospheric vicissitudes—a specific miasma, or a peculiar constitution of the atmosphere.

The existence of the latter cause is inferred from the circumstance of this form of fever occasionally prevailing epidemically,—extending itself over whole continents, and even passing from one continent to another.

**Prognosis.** Not in general a dangerous form of fever; most dangerous in infants and in very old people; apt to excite phthisis, in those who are predisposed to it.

**Proximate Cause.** Irritation and inflammation in the mucous membrane lining the respiratory passages, with disordered action of the cutaneous capillaries.

**Treatment.** Moderate bleeding, in the young and robust; in the aged and in infants, generally unnecessary, and often improper. *Mild laxatives* useful in all cases. *Mild diaphoretic drinks*, such as infusion of eupatorium, sage, chamomile, &c. together with pulvis antimonials, spiritus mindereri, or spir. nit. dulc. are important remedies. Blisters to the breast, when the pneumonic symptoms are severe.

*Mild expectorants*, to relieve the cough.

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**Typhus.**

Typhus is by no means so common a disease as is generally supposed. The term *typhous* is frequently applied to fevers essentially distinct from typhus. Synochous and catarrhal fevers are often improperly denominated *typhous.*
Typhous divided into four periods, viz. the forming stage, the stage of invasion, the stage of excitement, and the stage of collapse.

Symptoms—Of the forming stage. Lassitude, giddiness, and dull pain in the head; a peculiar uneasy sensation in the stomach, nausea, and sometimes vomiting; want of appetite; thirst; pale and shrunked countenance; tre­mour of the hands; eyes dull and heavy; muscular debility; diminished mental energy and physical sensibility. This stage lasts from three to seven days.

Stage of Invasion. Slight chills, alternated with flushes of heat; tongue whitish or clammy; entire disgust of food; nausea and vomiting; a sense of weight and anxiety in the praecordia. This stage lasts from six to twenty-four hours.

Stage of Excitement. Face full and flushed; pulse full, somewhat resisting, and accelerated; skin dry and warm; lips parched; thirst urgent; bowels constipated; eyes red and watery; slight and transient delirium; vigilance; obtuseness of hearing; weight and oppression in the chest; tenderness and fulness of the hypochondria; catarrhal and peripneumonic symptoms; mind, about the third day, confused, as if stunned; great reluctance to mental and corporeal action. About the fourth day, a red milliary eruption often makes its appearance. Hildebrand regards this as an essential exanthema of this disease. The voice is at first rather plaintive, but in the advanced periods of bad cases, it becomes guttural, and “at last, truly sepulchral.” The body exhales a peculiar odour, in this disease.
Note has been used in large doses with great advantage in typhoid fever. In typhoid fever, the patient with a view to its anti-phillogistic effect may be given in solution to every 6 hours. Note in every dose with small doses of toracics may be given with advantage in fever.

In Catarhal Fever the great sensitiveness distiguishes it from other forms of fever. The patient will approach the fire and ask for more bedclothes when the febrile paroxysm is in its highest state. The skin remains very tinge the 4th or 5th day when perpiration breaks out. The urine report a brick-red discoulored Constituting a Crisis of the Disease. When the local inflammation is seated in the Schmiidian Membrane it sometimes extends to the point of dimmed causing peculiar pain at the root of the nose. It sometimes travels up the Eustachian tube producing temporary deafness paining up the papillas. Influenza is different from Catarhal fever in the constant disposition to sneeze the tendency to run into a typhoid state. This disease has traveled from one continent to another and over large tracts of country against strong current of wind, the predisposition to this disease is probably caused by some electrical condition or change of atmosphere.

20 gr. Kome's Mineral 8 oz. Liquor jujube extract 2.5 gr. diaphanized. When the cough continues troublesome, direction of Polypeza Senega with honey.
Typhoid. is a febrile disease which cannot come in usually 3 weeks. This disease has been divided by Armstrong in 3 varieties, viz. simple inflammation and congestion. On Smith never seen a case of Typhoid terminate fatally without inanition occurring in the last stage. Brodson & Clittuck contain that inflammation of the membrane the mucous or the alimentary canal on the anterior membrane of the brain to be the common factor of the disease. When the brain is the seat of the inflammation, by regurgitating the patient to raise his head, if he voile it in a cautious slow & studied manner we may infer, that there is inflammation but if he makes his head rapidly there is no inflammation. Inflammation of the superior part of the spine chord is always attended by pain on the arm just below the shoulder. When the lungs are substantively affected with inflammation as when the inflammation is, ceases on the mucous membrane of the bronchial tubes, there is always violent pain over the eye which is aggravated by coughing.

When Typhoid occurs in warm weather the Billiris apparatus are particularly obnoxious to inflammation.

When it occurs in cold weather the lungs & bronchial tend to inflammation.
This stage lasts usually about seven days; at the end of this period, it terminates in the

Stage of Collapse. This stage is characterized by: great prostration of muscular power; torpor of the sensorial functions; a very frequent and feeble pulse; tongue brown, dry, at last black; incrustation of the teeth with a blackish matter; short and feeble respiration; difficult deglutition; almost constant delirium; coma; tongue tremulous, and put out with difficulty; subsultus tendinum; hiccough; heat of the skin intense and acrid; unequal distribution of the animal temperature; diarrhœa, with pain in the bowels, in the latter periods of severe cases; urine pale; tympanitic bowels; sometimes petechiae.

The foregoing sketch applies to typhus in its regular and simple form. In this form, there are manifest morning remissions and evening exacerbations. Typhus is subject to various important modifications. In some instances, local inflammations supervene, forming what Dr. Armstrong calls

Inflammatory Typhus. The organs most liable to become the seat of inflammation are, the lungs, the brain, the intestinal canal, the liver, and the peritoneum. The mucous membrane of the alimentary canal and the arachnoid of the brain, the most commonly affected. The theories of Broussais and Clutterbuck referred to. In some instances, the stage of excitement does not become developed, the stage of oppression continuing throughout the whole course of the disease. This variety constitutes Dr. Armstrong's

Congestive form of typhus. This modification is characterized by: a want of reaction; great
prostration and sinking, from the commencement; deep pain in the head, and vertigo; face pale and dingy; respiration anxious and oppressed; pulse small and variable; skin cool, damp, and relaxed; countenance bewildered or vacant; eyes dull, watery, and red, or glairy and staring, without redness; bowels at first constipated—towards the conclusion, copious involuntary stools; tongue pale and tremulous, becoming at last brown and rough; petechiae; passive hemorrhages; coma; sometimes, from the beginning, complete torpor and insensibility.

Dr. Armstrong’s opinion that the depressed and prostrated state of the system depends on internal venous congestion, refuted.

The internal congestions are most probably the consequence, and not the cause, of the impaired or depressed condition of the vital energies. When the remote cause of typhus acts with great intensity upon the system, the vital powers are suddenly prostrated; in consequence of which, the heart and capillary system act feebly—the blood recoils from the surface to the central vessels, and gives rise to internal congestions, which the enfeebled heart is now unable to overcome.

Causes of Typhus. Typhus almost peculiar to the cold seasons of the temperate climates. Smith, Ferriar, and Wedekind, have seen it during the hottest weather in summer. Propagated by a specific contagion: evidence adduced in support of this assertion. Typhus occasionally originated by other causes than contagion—deficient and unwholesome food, and the contaminated air of confined and crowded apartments, the most common causes of this kind.

Upon the subject of the origin and mode of propagation of this disease, physicians are by no means unanimous. Some regard typhus as always and
It is asserted by some pathologists that the primary cause of typhus fever consists in an inflammation of the mucus membrane of the alimentary canal. Others contend that the primary cause consists in an inflammation of the arachnoid membrane of the brain. But it has been ascertained by experiment that these appearances of inflammations are produced in or just before Articul-mortis. These appearances have almost uniformly been observed in animals which have been decapitated, in criminals who have been executed.
Treatment of Typhus. Here is a class of physicians who believe that typhus
are the proper remedy and universally employ them. There is others who
think that the disease cannot be arrested in its course by any remedy or treatment
Dr. Eberlein think that it can, early in the disease in the forming stage, when there's
next to or next to the calsперies the indication is to overcome this torpor and to direct the blood to
the surface which may be effected by antimonial
emetics, which sometimes arrest the progress of
the disease, after the emetic, a purgeation should
be exhibited; after this treatment, he exhibits small doses
of Colonel 2 pr. and 2 or 3 doses produce a powerful effect
hours till the drugs becomes effectues, by these means
in a short time the disease may be cured, the Mercurial
treatment should be continued in the forming stage.
Mercury does not produce its equalizing effect as the
Vaccination, more decidedly than in this stage of typhus
in this stage 2 or 3 doses should be had daily, diuretics
and antiphlogistic drugs. In the stage of excitement
cold othonium may be employed with great advant
op
essentially a contagious disease, while others deny
that it is ever communicated in this manner. The
weight of good testimony is in favour of the occa­sional generation of the disease, by causes entirely
distinct from contagion. When once generated, it
may, and frequently does, spread from the sick to
the healthy, in the manner of a contagion.

**Prognosis.** Free and spontaneous vomiting,
in the beginning, particularly when it relieves
the giddiness, generally indicates a mild
course of the disease. Hemorrhage from the
nose, about the seventh day, is favourable.
Very manifest remissions in the morning, are
always a good sign. Moderate diarrhoea, dur­ing
the first days, is favourable; but when it
occurs in the latter periods of the disease, it
is a very bad sign. Great thirst, in the stage
of collapse, is favourable; so also is a moist
tongue, in this stage. The absence of impor­tant
or violent local inflammations, always a
good sign. Diminution of the frequency of
the pulse, and of the acrid heat of the skin,
is favourable. Among the symptoms which
are particularly unfavourable, are: great
change of the expression of the countenance,
in the beginning of the disease; entire ab­sence of thirst; constant and violent delirium;
early petechiae; strong peripneumonic symp­
toms; swelling of the parotids. The most
dangerous signs, in the last stage, are: blind­
ness; involuntary flow of tears; difficult de­
glutition; palsy of the tongue; constant low
muttering; an entire abandonment of himself;
a very frequent and small pulse; pain in the
region of the bladder; tenderness and tume­
faction of the abdomen; floccitatio; continued
motion of the hands and fingers; diarrhoea;
insensibility to the vesicating effects of can­
tharides; hiccough; aphthae in the mouth;
suppression of urine, &c.
TREATMENT. The first object is to remove as much as practicable the remote cause, or to lessen its activity. With this view, the patient is to be removed from the confined and contaminated air in which the disease was contracted; or if this cannot be done, the apartment in which he lies must be freely ventilated.

Diversity of opinion, in relation to the treatment of typhus. Many physicians maintain, that no remedial treatment is adequate to interrupt the course of the disease, when once completely formed. (Smith, Hildebrand.) This I believe to be an erroneous opinion. Attention to the several stages of the disease, all-important in its remediate treatment.

In the forming stage, the indications are: to overcome the torpor of the external capillaries; to determine the circulation to the surface; and interrupt the morbid sympathetic actions throughout the system. For this purpose, emetics are highly serviceable; given soon after the attack of the disease, they will often interrupt its course. After the operation of the emetic,

Mild purgatives should be employed. Two or three alvine evacuations should be procured daily.

Diaphoretic ptisans, beneficial in this and the subsequent stage; such as infusions of eupatorium, catnip, sage, &c.

Calomel: In the early periods of the disease, this article is often decidedly useful. Slight mercurial influence, the most effectual means of arresting typhus in its early stage; two grains of calomel may be given every four hours, until the gums become slightly inflamed. The
constitutional influence of mercury, generally pernicious after the disease is fully developed—its benefits being restricted to the first five or six days. Calomel no less beneficial, in the early stage of congestive fevers. (Armstrong.) It has a powerful tendency to equalize the circulation; it raises the pulse, restores warmth to the skin, and increases the general energy, in such cases.

*In the stage of excitement,* a more or less active antiphlogistic treatment becomes necessary. *Mild cathartics* particularly useful in this stage—they moderate at once the general excitement, the heat of the skin, and the force of the pulse.

**Cold Affusions.** When the skin is hot and dry, in this stage of typhus, the affusion of *cold water* is often highly beneficial. As the stage of collapse approaches, the temperature of the water should be raised. Cold affusions are *improper*, when the skin is below the natural temperature, and a sense of chilliness is present, or when there is profuse perspiration. Common salt may be advantageously added to the water, particularly when there is much prostration. When the heat of the body is unequally distributed, neither *cold* nor *tepid* affusions are proper: local inflammations also form an objection to cold affusions. In such cases, sponging the body with *tepid* water will sometimes do good.

*Diaphoretics, of the refrigerant class,* useful during the stage of excitement.

*Bleeding,* very rarely called for, in cases of simple typhus.

**Stage of Collapse.** In this stage, stimulants and tonics are the appropriate remedies.
Wine, serpentaria, calamus aromaticus, ammonia, opium, aether, phosphorus, camphor, and musk, are the most useful. Of these, wine, ammonia, camphor, and opium, are the best. When stimulants render the pulse fuller and slower, and the skin moist and cooler, they may be continued with confidence; but when the pulse becomes more frequent and cored, the countenance flushed, with an increase of restlessness and delirium, under their use, they are doing injury, and must be discontinued. Camphor particularly serviceable, where there is much delirium; combined with nitre and calomel, useful even in an earlier period, when the disease is complicated with peripneumonic symptoms. Small doses of opium, with infusion of serpentaria, beneficial in pneumonia typhoides. Musk said to be particularly useful, in typhus of habitual drunkards. Opium serviceable, when in the last stage, where there is much restlessness, delirium, and other symptoms of nervous irritation; combined with calomel and chalk, excellent to check the diarrhoea, which sometimes supervenes in this stage.

Distinction between true and false debility. In the former, there is an actual impairment of the vital powers; in the latter, the powers of the system are oppressed, generally, in consequence of intestinal irritation. False debility sometimes occurs before the supervention of the stage of collapse—if, through mistake of its nature, stimulants are given, injury will be done. The diagnosis between true and false debility. In false debility, or prostration from intestinal irritation, there are, generally, much jactitation; flushed countenance; eyes suffused; extremities cold; pulse irregular, and very small; hurried and anxious
Stage of Collapse. In the employment of stimulants, in this stage we must not overstimulate them, which may be done. When under the king of stimulants, the patient dreams, more or less deliciously; the heat of the increase and the pulse does not subside but becomes more frequent. The stimulant must be improper, but when on the contrary the pulse subsides in frequency, the patient is more comfortable. The stimulatory practice may continue with confidence.

One of the best stimulants is Castor Oil aqueous solution taken every hour. When there is great delirium Camphor is one of the best stimulants. The proper way to exhibit it is in solution in water. Muskt is particularly serviceable in typhus or habitual chronic dysentery. Phosphorus is one of the best potent stimulants. The best mode of exhibiting this article is in at the front of the bowels. Phosphorus 3ps. At each 3ps. every hour.

A mixture of the分析精神, gun powder, and nitric acid. Mixture is made.

Toasted Brandy will frequently agree with the stomach of the patient. When other stimulants will not. The stimuli may be changed with advantage when it is necessary to employ them a length of time. Occasional small doses of this mixture are of great use, especially in cases of fever.
In the advanced stage of collapse, a discharge of mucous mixed with blood, which is the consequence of irritating matter in the intestinal tract, should be given under these circumstances at the same time that we support the system by large quantities of stimulants. Blisters are seldom serviceable in typhus, particularly in the advanced stage of the disease if they are allowed to remain on a sufficient length of time to produce perforation. Mortification is apt to be the result in consequence of the weak, debilitated state of the system. In typhus which occurs in consequence of a want of food a dietetic treatment—keeping the stomodaeum distended by a bland nutritious fluid is

from highly beneficial.

The American Montana 1 oz of the flowers to 10 or 12 oz water infuse, to be given in the course of the day in the stage of collapse. Much as stated by Stebbins, Widmann, and the German Physicians, for moderating the delirium and coma.
respiration; stupor; little or no delirium: it generally comes on suddenly. In debility, or sinking from an impaired state of the vital powers, the prostration usually comes on gradually; delirium is almost constant; skin hot, the heat being of the acrid kind, (calor mordax;) the countenance is sunken and inanimate, with subsultus tendinum, &c. Observations on the use of laxatives, in the stage of collapse. They are often highly serviceable. They should be given in conjunction with stimulants, such as ammonia, wine, alcohol, &c. One or two stools should be procured daily.

\textit{Cinchona} not in general of much use; when in the latter stage, the tongue and skin are dry, and there is much delirium, coma, and subsultus tendinum, the bark is improper.

\textit{Blisters} seldom serviceable, in simple typhus.

\textbf{Diet.} Solid food injurious: farinaceous and mucilaginous substances, the only nutriments admissible. Barley water, and thin oat-meal gruel, should be freely allowed, in the stage of collapse.

In typhus complicated with local inflammation, bleeding, in the second stage, is often indispensable: \textit{it must be early employed;} delayed beyond the thirty-sixth hour after the beginning of the inflammation, \textit{it will most commonly do harm}. Sufficient blood should be drawn at once, to make a decided impression on the system. Small bleedings, however frequently repeated, afford no permanent advantage. \textit{Cupping} or \textit{leeching} may be beneficially employed, when \textit{general} bleeding is contra-indicated.
Calomel with Opium, a valuable remedy after proper depletion, in typhus with pneumonic symptoms. One grain of each may be given every four hours. This remedy is hurtful, when the inflammation is seated in the brain.

In prescribing depletory measures in typhus, even when connected with inflammation, it should be kept in mind, that there is always lurking at the bottom a radical tendency to a state of exhaustion or prostration.

Typhus in which reaction does not take place, or Congestive Typhus. Bleeding recommended by Armstrong and others. Objections stated against this practice, and reasons given in favour of the employment of stimulating frictions, warm applications to the external surface, and warm and gently stimulating drinks.

Applications of this kind not only cause a determination to the surface, and thereby relieve the heart and arteries, but they also tend to invigorate and support the general energies of the system, by the stimulus they impart to the nervous extremities of the surface.

Blisters, purgatives, calomel and opium, are important remedies, in this modification of the disease. Further observations on the beneficial influence of calomel, in congestive states of fever. While this remedy is given, with a view both to its purgative and constitutional effects, warm and stimulating applications should be made externally. A blister to the epigastrium will often do much service in such cases. (Armstrong.)
Typhus Complicates with pneumonia, inflammation. Opium & Calomel are particularly serviceable after bleeding & purging has been previously. Cold may be applied to the head or a local application.

In typhus accompanied by phrenitis, congestion of the intestines, which occur in the former types, & torpor, he thinks depend on a debility of the vessels of the capillary system, Blandy recommends by Armstrong to overcome this torpor of the capillaries, to allow the heart to react and propel the Blood to the surface. Erbée would not adopt this plan & would substitute stimulating friction, rubbing stimulating dressings, &r.

Dr. Armstrong says that he had for a long time overlooked one of the most useful remedies in Congestive typhus (vig calor), which was forced into my notice by my patients always rapidly recovering after ptyalism had been produced. The constitutional effects of this remedy should of all things be avoided in the advanced stages of the disease.
CHAPTER IX.

INFLAMMATION IN GENERAL.

PHENOMENA. Pain, increased heat, redness, and swelling.

1. Pain. Not always, though generally, present; generally, the looser the structure, the less pain; sometimes absent, in peripneumonia, gastritis, pericardatitis, &c.; inflammatory pain always increased on pressure, and may be thus distinguished from spasmodic pain. The nature of the structure inflamed modifies the character of the pain. The violence of the general febrile reaction, proportionate to the intensity of the pain.

2. Increased heat. Not always present; actual degree of heat never raised above 98°. The sensation of heat depends on the altered state of the sensibility of the inflamed part.

3. Redness. Almost an invariable phenomenon of inflammation; arises from the intromission of blood into the serous capillaries; generally remains after death; redness, by itself, no certain sign of previous inflammation; the serous capillaries may become injected with red blood in articulo mortis, although sound before; importance of this knowledge, in autopsic examinations.

4. Swelling. The effect of effusion into the surrounding cellular tissue; the firmer the structure, the less swelling.

Inflammation is located in the capillary system. The more abundant the capillaries of a part, the more apt is it to become inflamed. The
mucous, serous, cellular, and dermoid systems, being very vascular, are very subject to inflammation; the contrary obtains with the osseous, the cartilaginous, and the tendinous structures. (Bichat.)

Aetiology. Inflammation may be produced—1. By the direct operation of irritants on a part. 2. By the indirect operation of irritants on parts, through the medium of the nervous system. 3. By general irritated vascular excitement. 4. By metastasis.

Whatever be the exciting cause of inflammation, the following changes take place in the progress of its evolution: viz. irritation; then alteration of the vital properties; and finally, an afflux of blood to the part. These changes often succeed each other so rapidly, that they seem to arise simultaneously. A change of the vital properties is essential to inflammation; preternatural determination to a part, without altered sensibility and contractility, constitutes congestion, or local plethora—not inflammation. (Bichat.)

Are the capillaries of an inflamed part in a state of debility, and is the velocity of the blood circulating in them diminished—or, are they in a state of increased action? Vacca, Lubbock, Allan Philip, and Hastings, have written in support of the former opinion; but the subject is still sub judice.

My own view on this subject is, that the inflamed capillaries ought to be regarded as being in a state of irritated excitement; and that this irritated condition may be connected either with an increased or decreased power of action. In this respect, local inflammation corresponds with that general irritated vascular excitement, which constitutes fever. The heart and arteries are in a state of irritated action, with increased power of acting in synocha. In typhus, there is also general irritated excitement;
but it is connected with a fundamental debility of the vital powers. There is therefore, according to my apprehension, a typhous and a synochal state of local inflammation; and this corresponds with the results we obtain from remedial applications. May we not explain these different diatheses of inflammation, by the greater or less degree of organic injury sustained by the nervous filaments of the inflamed capillaries? When a part is irritated, so as merely to excite the sensibility of the capillaries, by exciting their nervous texture, the consequent inflammation will probably be one of increased capillary action, and demand sedatives for its cure; when, on the contrary, the irritating cause acts with such violence as to cause structural lesion in the nervous extremities, the inflammation resulting from its action will, I conceive, be characterized by debility, and demand stimulating applications, as is the case in scalds and burns.

Terminations of Inflammation. These are quadruple:—

1. Resolution. Inflammation is said to terminate in resolution, when it declines and disappears without any structural lesion, or perceptible discharge. Resolution is more prompt, in proportion as the organ affected possesses a higher degree of vitality; in the serous membranes, the progress of inflammation is particularly rapid. (Bichat.) Resolution is often accompanied by an increase of the natural secretions of the part: this is particularly noticed in the mucous and serous membranes; also, in rheumatic inflammation.

2. Effusion. The effusion may be blood, lymph, or serum. The termination by effusion of blood, most common in the mucous membranes; effusions of lymph and serum, almost peculiar to the serous membranes—the former fluid forms a bond of union between the serous membranes. Such adhesions never occur in the mucous membranes. Serum seldom abundantly exhaled, until the inflammation...
INFLAMMATION IN GENERAL.

has assumed a chronic or sub-acute character. Dropsies are the consequence of this mode of termination. Effusions of lymph into the substance of the solid viscera, result in induration.

3. Suppuration. The cellular, serous, and mucous tissues, are most prone to this termination; the bones and tendons never suppurate. The mode of suppuration different in the different structures; in the mucous membranes, it is a morbid secretion, the pus having a whitish, cream-like appearance. In the serous membranes, pus is formed by a kind of exhalation, and is a thin, whitish, or whey-like fluid, sometimes mixed with flakes. In the cellular tissue, pus collects in circumscribed cavities, called abscesses, and is of thick and uniform consistence and pale yellow colour, exhibiting to the microscope minute globules suspended in a serous fluid. Symptoms denoting the occurrence of suppuration, in the inflammation of internal organs: a sensation of weight in the inflamed part; change from the acute to a dull throbbing pain; rigors; pulse losing its tension and hardness, and becoming soft and full; night sweats, and other symptoms of hectic.

4. Gangrene. Never occurs in the cartilages, nerves, or bones. The cellular, mucous, and serous tissues, are most prone to it; more common in the peritoneum, than in any of the other serous membranes; of the mucous membranes, that lining the alimentary canal is most subject to it. The occurrence of gangrene is denoted by: sudden cessation of pain; sinking pulse; cold extremities; cold sweat; delirium; and cadaverous countenance.
Varieties of Inflammation. Inflammation occurs under five prominent modifications, corresponding to the five elementary tissues—viz. the cellular membrane and parenchyma of the solid viscera; the serous membranes; the mucous membranes; the skin, or dermoid tissue; and the fibrous membranes.

1. Inflammation of the cellular membrane, or phlegmonous inflammation. Characterized by, great swelling, throbbing pain, and by its mode of suppurating; the pus being collected in circumscribed cavities. Diffuse cellular inflammation.

2. Inflammation of the serous membranes, or serous inflammation. Pain very acute and lancinating—rapid in its course; no tumefaction; much sympathetic excitement of the general sanguiferous system, terminating in the exudation of coagulable lymph or serum, or the secretion of a whey-like pus; adhesions are peculiar to this variety of inflammation; it rarely terminates in gangrene.

3. Inflammation of the mucous membrane, or mucous inflammation. Almost always produced by sudden atmospheric vicissitudes, in consequence of the close sympathy which subsists between these membranes and the skin. Sometimes prevails epidemically. Pain not very severe; unattended with swelling of the subjacent cellular tissue; concomitant fever not intense; never terminates without an increase
of mucous secretion. No adhesions ever formed.

4. *Inflammation of the skin, or erysipelas inflammation.* Pain of the stinging or burning kind; spreading; forming vesicles; never suppurating in circumscribed cavities; dependent on a specific cause.

5. *Inflammation of the fibrous membranes, or rheumatic inflammation.* Pain intense and aching; does not terminate in abscess or suppuration; terminates by an exudation of a gelatinous matter, or by earthy depositions; is wandering; accompanying fever, always synochal; rarely proves fatal, except by metastasis to organs essential to life.

**Diagnosis of internal Inflammations.** The existence of internal inflammation is ascertained by: the continuance of the pain; the appearances of the blood; the state of the general vascular excitement; the effects of external pressure; the effects of position; the character of the functional derangements; the temperature of the skin; and the nature of the exciting causes.

**CHRONIC INFLAMMATION.**

*Chronic Inflammation* is generally, though not always, the consequence of *acute* inflammation. Doctrines concerning its nature.

*The effects of Chronic Inflammation,*—dropsical effusions, and tuberculated accretions in the serous membrane; phthisis, diarrhea, dyspepsia, and various other affections in the mucous membrane, &c.

**TREATMENT.** The indications in the treatment of acute inflammation, are—1. To diminish
Phlegmacia

Encephalitic inflammation divided into
Meningitis & Arachnitis.

Phrenitis may be an inflammation of both
the Meninges & Substance of the Brain.
In phrenitis, the brain's power are damped.
This disease seldom or never occurs as an sick
acute disease - it is mostly caused by other
diseases being symptomatic.

Inflammation of the Substance of the Brain
It has been ascertained by recent section,
and examination, may exist without sensible
or any great degree of pain. Atrophy of the
Brain & Softening of that organ have occurred
without being attended with much pain.
It is when the Membranes are inflamed that Violent
delirium & pain are produced.

Treatment. This disease requires the most rapid
antiphlogistic treatment, best by prompt
V. O. & purgation, as the humors in this
disease are topick. It requires large doses, the
latter is generally in a topick state, we should
therefore give Mercury, 20 gr. and in the course of
an hour give an active purgative. Next to
bleeding, Cold applications to the head are important
to subdue the inflammation and pain.
the momentum of the general circulation; 2. To drive the blood from the inflamed part; 3. To alter the action of the inflamed capillaries; and 4. To change the inflammatory condition of the blood.

CHAPTER X.

INFLAMMATION OF THE BRAIN.

Encephalic Inflammation is divided into two varieties—viz. Phrenitis and Arachnitis.

PHRENITIS.

In Phrenitis, the substance of the brain, as well as its membranes, are involved in inflammation.

Symptoms. Synocha; fixed and intense throbbing pain in the head; face full and flushed; eyes inflamed; intolerance of light; hearing at first morbidly acute, at last almost complete deafness; furious delirium from the commencement, and constant wakefulness.

Causes. Insolation; the excessive use of spirituous liquors; great anxiety of mind; metastasis of erysipelas; external injuries; suppressed eruptions and habitual discharges; want of sleep; exposure to intense light; cold, &c.

Diagnosis. Distinguished from mere synocha, with high cerebral excitement, by the following circumstances. In phrenitis, there is always prominent derangement of the organs of sense—in synocha, hearing and vision are but little affected. In phrenitis, the internal functions are always much disturbed—in synocha,
this is rarely the case. In synocha, the pulse is hard, full, frequent, and vibrating; from the beginning—in phrenitis, it does not become so until the inflammation is fully formed.

**Prognosis.** Hæmorrhage from the nose is favourable,—from the bowels, in the advanced stage, unfavourable; coma supervening to delirium, a fatal sign.

**Autopsic Phenomena.** Flakes of coagulable lymph, pus, and serum between the membranes; sometimes adhesions; abscesses in the substance of the brain; erosions of the dura mater.

**Treatment.** Vigorously antiphlogistic. Prompt and decisive bleeding, both general and local; cold applications to the shaven scalp; cathartics; the refrigerant diaphoretics; blisters to the nape of the neck, after the febrile excitement has been moderated by depletion. The head should be kept in an elevated position, and the chamber dark, noiseless, and cool. Digitalis and nitre, after the disease has been in some degree subdued.

**Arachnitis, or Hydrocephalus Acutus.**

This is a much more common form of encephalic inflammation, than the preceding one. It has of late years been extensively investigated, by Martinet and Duchatelet, of Paris, whose pathological researches, in relation to it, are highly interesting and valuable. I treat of hydrocephalus and arachnitis under the same head; for it is now placed beyond all doubt, that the malady known and described under the name of hydrocephalus, is neither more nor less than arachnoid inflammation. The term hydrocephalus is indeed altogether inappropriate to the
disease; for instead of directing the mind to the *primary* and *essential* affection, it has reference only to one of the occasional *consequences* of the disease.

*Symptoms.* Often very gradual in its approach. In this case, there are transient pains in the head and abdomen; the patient is dull, fretful, restless, and discontented; countenance pale, with an occasional flush on the cheek; the brows contracted; appetite variable; bowels torpid, or mucous diarrhoea; starting, and grinding the teeth, during sleep. After these symptoms have continued for an indefinite time, those which characterize the disease in its full development come on: these are—severe pain in the head; nausea and vomiting; deep sighing, occasional somnolency, and slight delirium; very dilated or contracted pupils; an expression of surprise and stupor in the countenance; slight redness of the conjunctiva; *paralysis of the upper eyelids*; squinting; eyes turned up, so as to hide the cornea under the upper lid; towards the last, constant somnolency, interrupted by spells of great anxiety and restlessness, or fits of violent and frightful screaming; paralysis of one side; convulsions; death. The patient can seldom be induced to utter more than monosyllables. The pulse is at first irritated, frequent, and tense; when somnolency comes on, it becomes slower; towards the termination, it again becomes very frequent.

The disease is sometimes ushered in by convulsions. I have seen it come on without any febrile excitement, the countenance remaining pale, with cold hands, deep sighing, a peculiar expression of surprise, vomiting, and constipation. It sometimes comes on in the...
shape of a remitting fever. After a few days' languor and drooping, fever ensues, attended with head-ache, flushed countenance, tenderness of the abdomen, stupor during the exacerbations, the patient screaming and starting up in great alarm, great irritability of the stomach, obstinate constipation, &c.

**Predisposition.** Hereditary, in some instances; the scrofulous diathesis predisposes to it.

**Exciting causes.** External injuries; definition; intestinal irritation; suppression of serous discharges and of cutaneous eruptions, particularly about the head; frequently the consequence of *cholera*, whooping cough, measles, and scarlatina.

**Diagnosis.** *Arachnitis* to be distinguished from *infantile remittent*, by the regularity of the remissions in the latter, and the character of the stools. In infantile remittents, the stools are fetid, and of a dark-brown or mud-like appearance—in *arachnitis*, they are dark-green and glairy.

The connexion between *arachnitis* and *cholera infantum* pointed out.

**Prognosis.** Always highly dangerous; deep somnolency, paralysis, blindness, strabismus, and convulsions, indicate a fatal termination.

**Autopsic phenomena.** Commonly, general redness of the arachnoid membrane; sometimes it is opaque and thickened, with a purulent, sero-purulent, or sero-gelatinous effusion on the surface; more or less *serous* effusion into the ventricles, and between the lamina of the arachnoid.

**Treatment.** The indications are—1. To moderate the general febrile excitement; 2. To
In Chronic Cholera Infantum, when it proves fatal, it always takes accompanied all the symptoms of the last stage of Phrenitis or Hydrocephalus. This is one of the arguments that favour the suppositions that Hydrocephalus is the consequence of intestinal irritation.

In a case of disease attended by Dr. Shebbe-McBlellen, the patient died with all the symptoms which attend it. On examination a very small quantity of serum was found effused into the ventricle of the Brain. But on examining the abdomen one of the small intestines was found in a carcinous condition, for the extent of 6 or 8 inches.

Deep sighing is a conspicuous symptom in Hydrocephalus. This occurs most frequently about the time that effusion into the Brain is taking place.

This disease occurs in Adults by intemperate abstinence or study, abuse of Spirituous liquor, the depressing passions, Cold, Injury of the head.
After Measles and Whooping Cough have disappeared, during the period of convalescence, children are more liable to this disease. In the incipient stage of this disease, the liver is in a torpid condition, the patient is fretful, abdomen hard, breast puffy, upper lip, the symptoms are similar to present acute gland disease from Streptococci, alternating doses of Bismuth, purgatives, heat, light, nutrient and injectable, Salt, frictions.

In Hydrocephalus depending upon intestinal irritation, we can not employ U.S. with the same advantage that we can when the disease does not depend upon this cause. Purgatives are the most efficient, strong and active cathartics may be employed to lessen the flow of blood to the head and subdue the inflammation when it has been caused by blows or external injuries, Seckel do not appear to actively beneficial in lessening the circulation of the brain.
subdue the local encephalic inflammatory affection of the brain; and 3. To remove those causes which tend to keep up a preternatural determination to the brain.

For this purpose are employed:

Bleeding, copious and prompt, both general and local. The blood should be suffered to flow, until an approach to syncope is induced; — leeching on the crown of the head. (Duchatelet.) General always to be premised to local bleeding.

Purgatives are of great importance. Calomel the best purgative, on account of the torpor of the liver in the early period of the disease. Where worms are suspected, spigelia and senna should be used.

In cases depending on intestinal irritation,—and the majority of cases in infancy are of this kind,—violent purging is improper. Mild laxatives, however, are of the utmost importance. Where the disease has been brought on by external injuries to the head, or where the arachnoid inflammation is idiopathic, the more active purgatives may be employed with advantage.

Revulsive applications. Cold applications to the head; blisters; pediluvium; cupping. Blisters are usually applied to the shaven scalp—I prefer placing them behind the ears, or on the nape of the neck, while ice or other cold applications are made to the scalp, and sinapisms laid on the soles of the feet.

Mercury: with a view to its constitutional influence, one of our most useful remedies in this disease. Percival, Dobson, Rush, Cheyne, and others, mention cases which yielded to it.

James's Powder. Dr. Stocker states, that this article has a decided tendency to diminish the circulation to the head; and of the truth
of this observation, I have had repeated evidence. It is best given in combination with calomel, in this disease.

*Dover’s Powder.* Drs. Brooke, Percival, Cheyne, and Crampton, speak highly of the efficacy of this article in hydrocephalus. In cases depending on intestinal irritation, after adequate depletion, it may sometimes prove serviceable. In the idiopathic form of the disease, however, all opiates are injurious.

*Digitalis* has been recommended; and, from its tendency to lessen the action of the heart and arteries, it may undoubtedly be employed with occasional advantage.

**ERETHISM OF THE BRAIN. (Dr. Nicholl.*)**

Infants are subject to a morbid condition of the cerebral structures, which appears to consist in a highly irritable or sensitive state of the nervous centre; being unattended by inflammation, or increased momentum of blood in the cerebral vessels. I have frequently witnessed this affection, and think it a subject of sufficient importance and interest, to introduce it to the attention of the medical student. It is characterized by: wakefulness; irritable temper; retina very sensitive to light; contracted pupils; much action of the limbs; head often moved from side to side; extreme fretfulness; frequent crying, without any apparent cause—the little patient being “soothed only by tossing it, by carrying it about, putting it to the breast, or letting it suck the cheek of the nurse or its own fingers;” increased

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secretion of tears; bowels generally relaxed, without a disordered state of the stools. When sleeping, the child often starts, and is readily awakened; when awake, it starts at the slightest noise, or on being slightly touched; often shrieks out, as if it were pricked with a pin; the fists are frequently clenched, the thumb being bent in, and the fore-arms bent upwards on the arms. Sometimes the child presents, for a short time, a state of opisthotonos, “its legs being drawn up, and the head thrown backwards.”

In adults, this erethismal state of the brain shows itself by “irritability of temper, inability to bear the effects of the most trifling sounds, wakefulness, restlessness, febrile symptoms,” &c.

Subjects of a scrofulous diathesis are particularly predisposed to this morbid cerebral irritability.

Causes: dentition; gastric irritation, from various causes; torpor of the liver, &c.

Treatment. Exercise in the open air; tepid bath; small doses of ipecac. compos.; a mild, unirritating diet; leeches to the temples; lancing the gums; mild aperients and diuretics; pediluvium.

SOFTENING OF THE BRAIN.

This form of cerebral disease has of late been abundantly noticed by the French pathologists. Recamier, Bayle, Cayol, Bricheteau, Rostan, and Lallemand, have published numerous interesting observations, concerning its symptoms and pathology. The disease consists in a softening, or kind of liquefaction, of a portion of the brain, with vascular injection of the rest of its substance. Rostan divides the disease into two periods.
The symptoms of the first period, are: a fixed and violent pain in the head, often continuing for several months; vertigo; obtuseness of the mental faculties, the memory being weak, and the ideas confused; questions are answered after long hesitation; dejection; querulousness; indifference to surrounding occurrences; drowsiness; tingling and numbness in the fingers; frequently perverted vision, and occasionally total blindness; dull hearing,—sometimes very acute; frequently nausea and bilious vomiting; tenderness of the epigastrium; constipation; pulse variable, sometimes hard and full; occasionally there is delirium, with fever, and much agitation.

The second period is characterized by a gradual or sudden paralysis of one limb, sometimes of half the body; consciousness and intellect remain; questions are answered with very great difficulty, the patient generally expressing his desires by automatic movements; sometimes perfect coma; death commonly follows, in two or three days.

The corpora striata, and thalami opticorum, have been most frequently found the seats of this softening.

The inflammatory nature of this disease has been much doubted by some; but the facts and arguments adduced by Lallemand, render the opinion of its being of an inflammatory character, exceedingly probable. This writer thinks that the softening is "the effect of inflammation arrested in its course by death, before purulent suppuration has had time to take place."

Diagnosis. A contraction of the flexor muscles of the limb, is particularly characteristic of
this disease. "Sometimes," says Lallemand, "this amounted only to simple rigidity of the limbs; at others, it was carried so far, that the patient’s fist was kept rigidly applied to the shoulder, and the heel to the buttock." Contrary to what takes place in apoplexy, the mouth is drawn towards the paralyzed side.

TREATMENT. General and local bleeding; sinapisms to the feet; cold applications to the head; cathartics; blisters to the back of the neck; calomel, with a view to its salivant effect.

CHAPTER XI.

ACUTE GASTRITIS.

Symptoms. Burning and lancinating pain in the stomach; frequent vomiting, particularly on swallowing fluids; urgent desire for cold drink; constipation; fever, with a small, hard, and frequent pulse. After a draught of cold water, a temporary mitigation of the gastric pain occurs; difficulty of swallowing; disgust of warm drinks; great prostration of strength, from the beginning.

Diagnosis. Distinguished from spasm and flatulent pains, by the following circumstances. In gastritis, the pulse is small and tense—in cramp, it is generally natural. In the former, there is violent and frequent vomiting—in the latter, this rarely occurs. Warm drinks excite instantaneous vomiting, in gastritis—in spasm, they do not. The pain of gastritis is continuous—that of spasm is paroxysmal or
intermitting. In gastritis, the patient lies on his back, without moving, with his knees drawn up—in cramp, he sits up, with his body bent forward, or writhes about during the violence of the pain. In gastritis, the skin is hot and dry—in cramp, it is generally cool and moist. Hiccough is a common symptom in gastritis—in spasm, it seldom occurs.

Autopsic phenomena. The inner coat of the stomach thickened and red, with gangrenous, eroded, or ulcerated spots.

Causes. Mechanical irritants; poisons; cold water, swallowed while the body is in a state of free perspiration; over-distention with food or drink; the sudden application of cold to the surface; suppression of habitual discharges, &c.

Treatment. Bleeding; the smallness of the pulse and prostration in the beginning of the disease, no objection, but on the contrary a strong indication of the necessity of prompt and copious depletion. The pulse becoming fuller and less frequent, is an evidence that the disease is yielding.

Blisters over the epigastrium, are next in importance to bleeding; they are to be preferred to leeching, and should be early applied. Costiveness must be obviated by enemata. Cathartics, and the usual internal antiphlogistics, wholly inadmissible. Copious draughts of bland mucilaginous drinks, beneficial.

Opium, a valuable remedy in this disease: after the violence of the local and general inflammatory excitement has been moderated by depletory measures, I know of no remedy that is so useful in allaying the vomiting and
Treatment: Bleeding is the first most important remedial means; the blood should be taken from a large and bold vein. Next in importance to P.D. an aperient is a large Blisters should be applied over the region of the stomach. Broadblows, 2-3 foulglasses employing leeches in the place of blisters in the disease, from 12 to 20 leeches, are applied to the epigastrum. Dr. Cramer thinks the substitution of leeches for blisters is absurd. Mineral acid injection, Vincent Aire, Bland or monetaceous drink, may be freely employed. Opium when employed in a state of health produces constipation, but when employed in this disease it has a curative effect. It is one of the best and most efficient medicines in the cure of this disease. A large emollient poultice should be applied as a dressing to the Ulcer. Delirium from fever is best known to be relieved almost instantly by a draught of cold water. The pain is relieved for a short time as is also the vomiting by cold drinks.
Chronic Gastritis. May either occur as an idiopathic disease, or it may be the consequence of an attack of the acute form of the disease.

The patient dies in this disease sometimes by a gradual wasting and debility, sometimes the disease proves fatal by its assuming the acute form and producing gangrene of the alimentary canal. Distinguish between dyspepsia or gastric debility & this disease. In dyspepsia the tongue is white. In Chronic Gastritis the tongue is red, the food is rejected if it is the ordinary food of the patient. The solid food which is proper in dyspepsia is manifestly injurious in Chronic gastritis.
ACUTE GASTRITIS.

gastric pain, and producing a general and salutary diaphoresis, as opium in large doses. I have given two grains of this narcotic, in some exceedingly violent cases, with the happiest effect.

CHRONIC GASTRITIS.

Chronic inflammation of the mucous membrane of the stomach, is of much more frequent occurrence than is generally supposed. The worst forms of dyspepsia, and all that host of inveterate gastric and bilious derangements, of which so much is heard, and the true nature of which is so often misunderstood, are, in nine cases out of ten, the consequence of a more or less phlogosed condition of the mucous membrane of the stomach. We are indebted to the French pathologists, and more especially to Broussais, for much new and valuable information, in relation to this variety of phlegmasial disease.

Symptoms. A pricking, lancinating, or burning pain in the epigastric or hypochondriac region; the pain is constant and harassing, generally confined to a very circumscribed spot, and often attended with a feeling of constriction; sometimes a sensation is felt, as if a ball were pressing on the diaphragm; at others, as if a bar were fixed across the stomach, impeding deglutition; depraved and impaired appetite, often general abhorrence of food; indigestion; vomiting or nausea; load at the stomach, after eating; pulse but little excited, and heat of the surface natural, except during digestion, when they are a little elevated; great costiveness during the first period, but mucous diarrhea after the disease has become inveterate; the patient becomes irritable, de-
jected, taciturn, discontented; tongue of the colour of logwood, with a strip of thin fur along its centre. In inveterate cases, emacitation, with the skin drawn tight over the muscles, so that it cannot be pinched up. This tightness of the skin is the most constant diagnostic sign of the disease. Mere gastric debility may be distinguished from it by the effects of an emetic: when fever, pain, and anorexia, become increased after the operation of an emetic, we may be sure of the existence of high irritation, or phlogosis, in the mucous membrane of the stomach.

Mr. Barras has published some interesting observations, in the *Revue Medicale*, for November and December 1825, on gastralgia, and the frequency with which it is mistaken for gastritis. He gives the following, among others, as diagnostic symptoms between these two affections.

1. "In chronic gastro-enteritis, the pain is generally obtuse; often felt only on pressure; is never absent. Gastralgie pain, on the other hand, is often extremely violent; is often, when most violent, relieved, rather than increased by pressure. It often radiates from the epigastrium towards the thoracic parietes, the back, and the shoulders; is of an intermittent character, sometimes entirely disappearing, to return with more or less violence.

2. In chronic gastritis, the tongue, which is generally red on the sides and at the tip, is covered in the middle with a kind of dry mucous crust, resembling a false membrane; the breath is fetid, with a bitter taste in the mouth; there is thirst. In gastralgia, the tongue is white; saliva abundant; no thirst, but sometimes a repugnance even to liquids.

3. In gastritis, the appetite is always bad, and sometimes amounts to a universal disgust towards every kind of food. In gastralgia, the appetite is variable, null, slight, natural, often greater than in health.

4. In chronic gastritis, the ingestion of a small quantity of food renews the patient's sufferings; excites a febrile movement in the system, and the digestion is always imperfect. There is often rejection of the food by vomiting, a little time after eating; or if there be no vomiting, the patient is oppress-
ed during the digestive process, with a sense of weight, distention, nausea, acid or acrid eructations, and irritation of the bowels, or diarrhea, in the advanced stages. In some cases of gastralgia, the pain is relieved, at least for a time, by eating food in considerable quantity, and the digestion is complete, or even too quick. In the generality of cases, however, of gastralgia, the presence of food in the stomach renews the pain; but not till some time after eating, generally one, two, or even three hours; at which time, the patient experiences weight and malaise at the epigastrium, as if there was a foreign body in the stomach. There are nausea, borborygmi, flatulent colic, eructations of air, but without fetor or causticity. Sometimes indeed, patients will taste the aliments that they have swallowed in the air which they eructate, but the digestion is completed, and diarrhea is very rare. Constipation is generally obstinate, and the urine, especially when the gastralgia is in a high degree, is usually pale, voided frequently, and in small quantities at a time.

5. Chronic gastritis never fails to impair the process of nutrition, inducing hectic fever, characterized by hardness and frequency of the pulse, heat of the skin, and evening exacerbations, with loss of flesh and strength, sallowness of the countenance, with a peculiar dark tinge, and finally, death.

6. In some violent and prolonged cases of gastralgia, the patients experience difficulty of breathing, palpitations of the heart, wandering pains, and peculiar sensations of coldness, especially in the arms, loins, and lower extremities. The sleep is sometimes good, sometimes agitated, sometimes null; yet, in the mornings, the patient gets up refreshed, and feels quite well, till breakfast renews the gastric sensibility. Nothing of this kind obtains in latent gastritis.

7. Those who are affected with chronic inflammation of the digestive tube, are melancholy, morose, and impatient; but this is nothing to the state of moral depression and anxiety which obtains in gastralgia. In this last, there is ineffable despondency; disgust of life, or fear of death in the extreme; the slightest sensation in the stomach, awakens the patient’s terrors; he is tremblingly alive to every look of his physician—to every word which is spoken by his friends respecting his complaint; he is afraid of taking any thing into his stomach, as he knows, by
doing so, he will aggravate the complaint; he is convinced that his disease is mortal—becomes entirely absorbed by his own sensations, and indifferent to every thing else. But any diminution or cessation of the gastralgia, immediately changes the scene from despair to sanguine hope—to be again reversed on the slightest accession of the pain."

**Causes.** Indigestible and irritating diet; acrid medicines received into the stomach; the abuse of spirituous liquors; exposure to a cold and damp atmosphere; frequently the consequence of acute gastritis.

**Treatment.** Almost the whole remediate management depends on the proper regulation of the diet, together with the employment of leeches or blisters to the epigastrium. The food must be chiefly liquid, and as mild as possible; mucilaginous fluids, such as decoctions of barley, rice, or thin gruels, are the best articles of food; animal jellies are proper—so is boiled milk, with water. I have found small doses of ipecacuanha and calomel in combination, decidedly advantageous;—one-eighth of a grain of the former, with one-eighth of a grain of the latter, may be administered three times daily. A weak emulsion of bals. capaiva has also been found serviceable: this article, though irritating, has a peculiarly beneficial operation in chronic phlogosis of the mucous membranes.

**Acute Enteritis.**

**Symptoms.** Fixed, burning pain in the abdomen, generally about the umbilical region; obstinate constipation, nausea, and vomiting, the latter being sometimes so severe as to communicate inverted action to the intestines, and produce stercoraceous discharges by the mouth; fever,
ACUTE ENTERITIS.

with a small, frequent, and tense pulse; very rarely, the pulse is full and hard; dry and red tongue; urgent thirst; dry and hot skin; urine high coloured, and small in quantity; respiration short, and performed by the intercostals exclusively; position on the back, with the knees and shoulders elevated.

When the upper part of the colon is affected, acute enteritis is often attended by symptoms of pleuritic or hepatic inflammations.

Diagnosis. In pleurisy, the pulse is full and hard—in enteritis, it is small and tense; abdominal respiration in pleurisy—not so in enteritis; abdomen tender, and painful to pressure, in enteritis—not so in pleurisy.

Spasmodic pain distinguished from enteritis, by: the paroxysmal character of the pain; the constant change of position; the ease obtained by pressure on the abdomen; natural temperature and moisture of the skin, and the want of thirst, which characterize spasm of the intestines. The reverse, in all these circumstances, obtains in enteritis.

The only favourable termination is in resolution; suppuration is rare; gangrene is more common, and is always fatal. The disease would seem sometimes to prove fatal, without any of the usual terminations of inflammation.

Prognosis. Always very uncertain; an almost imperceptible pulse, with cold hands and feet, indicate great danger; diffusion of the pain throughout the abdomen, dangerous; tumid and tympanitic abdomen, a bad sign; frequent vomiting, in the latter stage, highly unfavourable.

TREATMENT. Copious depletion, in the early stage. Difference of opinion concerning the
propriety of employing active cathartics; mild laxatives very useful; drastic purgatives, however, are improper; decisive bleeding, an essential preliminary to the use of laxatives; calomel, or castor oil, in conjunction with opium, good articles for the purpose. Opium an important remedy, in the latter period of the disease, after the violence of the local and general inflammatory excitement has been moderated by depletory remedies. It promotes the operation of purgatives, determines to the surface, produces diaphoresis, and relieves the distressing pain suffered in this disease. When opium is given, it should be in large doses. Two grains may be given, every two hours.

Large doses of opium have a much less tendency to increase or support the inflammatory diathesis, than small ones. The sensibility and irritability of the system are greatly reduced, by a large dose of this valuable narcotic; and with them, all those morbid phenomena which depend on, or are influenced by, a preternatural sensibility state of the system, are moderated.

Blisters to the abdomen are indispensable. Leeching, and fomentations, are recommended; blistering, however, is preferable.

The ordinary internal antiphlogistic remedies frequently do harm. Mild diluents, of the mucilaginous kind, very useful; great attention to the diet, necessary during convalescence; the most unirritating food is alone admissible.

In the variety of enteritic inflammations noticed above, the inflammation is seated chiefly, if not exclusively, in the peritoneal coat of the intestines. Obstinate costiveness is an essential symptom of this form of the disease.—
Dr. Eberle usually treats this disease first by Blood-letting, he then gives Opium 2 gr. every 2 Hours combining it with Calomel, following this by 1 oz. of Castor Oil giving Snake dose of this article till purging is procured, giving after the opera-
tion 2 gr. more of Opium. He has found this treatment with invariable success.
Dr. Eberle had observed that those cases in which blood constitutes a principal part of the stools are much more tractable than those cases where blood is absent or small in quantity.
ACUTE ENTERITIS.

There is another variety of acute enteritis, in which the mucous membrane of the intestinal tube is the exclusive seat of the inflammation; and which is essentially attended by mucous stools, more or less mixed with blood, and by tenesmus. This latter form of the disease constitutes:

DYSENTERY.

Character. In inflammation of the mucous membrane of the intestinal canal, attended by fever, frequent bloody or mucous stools, griping, and tenesmus.

Symptoms. The fever generally becomes developed, before the enteritic symptoms—sometimes the reverse takes place. The violence of the tenesmus, a pretty correct criterion of the violence of the disease; tormina most severe, just before the calls to stool; constant soreness of the abdomen; evacuations sometimes wholly mucous; more commonly mixed with blood—occasionally, altogether blood; smell of the stools, at first, disagreeable, but not fetid—towards the last, of a cadaverous, penetrating fetor. In violent cases, colliquative diarrhœa sometimes comes on, a few days before death. Tongue at first white, afterwards brown, rough, and dry along the middle, with a red and moist border; clean and florid along the edges and tip, or smooth, clean, and deep red over its whole surface, in protracted cases. In some very protracted cases, the tongue and fauces become aphthous. The stools are never coloured, or mixed with bile. The skin is always dry.

Autopsic appearances. The traces of inflammation are sometimes confined entirely to the colon;
more commonly, however, marks of inflammation appear throughout the whole intestinal canal; but even where this is the case, the colon and rectum exhibit much stronger marks of disease than the other portions of the intestines. Very frequently, the mucous membrane of the colon and rectum is found ulcerated, thickened, soft, and pulpy. The liver is frequently found to have suffered structural derangement; it is most commonly enlarged, and in a stage of great sanguineous congestion.

**Causes.** Checked perspiration, by the application of cold. Analogy between dysentery and catarrh, founded on the similarity of their etiology. Suppressed perspiration always among the first morbid phenomena of dysentery. Deranged function of the liver and the skin are invariably present. (Johnson.) “The period most favourable for the production of dysentery, is when a cold and moist autumn succeeds a warm, dry summer.” (O’Brien.) Dysentery appears often to be the production of the joint influence of atmospheric vicissitudes and marsh miasmata. Sporadic causes, such as, unripe fruit; indigestible and unwholesome food; irritating substances received into the bowels. Not contagious. Scyballa have been much accused of giving rise to dysentery; the correctness of this accusation is denied by Dr. Johnson, and I believe very justly. I have seen a very great number of dysenteric patients; and yet the number of cases in which I have noticed the discharge of these hardened balls of faeces, is exceedingly small.

**Prognosis.** Cases in which the stools consist almost entirely of blood, are generally more
Inflammation of Membranes which are not spread out parenchymatous structure are not so much benefited by Bleeding as when they are spread over some organ as the liver, lungs, kidneys (Broussais). So in dysentery, Bleeding is not so serviceable as in Hepatitis. Active purgation in the commencement of the disease is injurious. Castor Oil Cord with Laxaum is one of the best purgatives. Castor when Combined with turpentine in the form of Syrups is not employed. Purgatives were formerly supposed to prove beneficial by evacuating phlegm or the hardened balls of feces which were supposed to be the cause of the disease. And we doubt purgatives are beneficial by discharging these deglutile when they do exist. Emetics are very beneficial in dysentery. Speed the proper emetic from its diaphoretic effect as well as its constraining effect on the bowels. They should only be employed early in the complaint, not often. When there is fever and pain, an S. should be used primarily to the employment of Emetics.
tractable than when the discharges are principally mucus. Colliquative diarrhea, at an advanced period, very unfavourable; stools of a penetrating and cadaverous smell, a very bad sign. Tympanitis, with small mucous stools, or with fetid sanious discharges from the bowels, highly unfavourable. A small, frequent pulse, with a sunken and cadaverous countenance, hiccough, and cold extremities, indicate a fatal termination. Bile appearing in the stools, is a favourable sign.

TREATMENT. The indications are—1. To moderate the febrile excitement, when excessive; 2. To restore the functions of the skin and liver; 3. To subdue the local inflammatory affection of the bowels.

In estimating the comparative importance of these indications, it is necessary to recollect, that suppression of the cutaneous exhalation, and consequent torpor of the liver, with an engorged state of the portal circulation, is antecedent to and causative of the intestinal phlogosis, and that the reaction of the heart and arteries is consecutive to this local inflammation.

From these circumstances, therefore, it seems evident that the restoration of the cutaneous and hepatic functions, constitutes the most important indication in the treatment of this malady; for in proportion as we succeed in the fulfilment of this indication, so do we equalize the circulation, lessen the determination to the bowels, and consequently moderate the local inflammation upon which the peculiar symptoms of the disease depend.

Bleeding. A very important and often indispensible auxiliary remedy, though rarely by itself sufficient to cure the disease. Analogy between dysentery and rheumatism, in this respect.

Purgatives. Constant and active purgation, injurious; mild laxatives, however, should be repeated almost daily; calomel, succeeded by
DYSENTERY.

a dose of castor oil; or this latter article alone, are excellent laxatives in this disease. Purgatives advantageously given in conjunction with opium. Spirit. tereb. given with ol. ricini, often renders the operation of the latter more certain and less painful. (Cheyne.) This is confirmed by my own experience. Cream of tartar recommended as a purgative. (Cheyne.) Modus operandi of purgatives, in the cure of dysentery.

Emetics too much neglected in dysentery. Most writers recommend tartrate of antimony. I regard ipecacuanha as the best emetic in this disease. Emetics not useful or proper in the latter period of the disease; their beneficial operation confined to its commencement.

Diaphoretics are among the most valuable curative means in this disease. The bowels having been adequately evacuated by mild laxatives, and bleeding having been practised, where the violence of the febrile symptoms demanded, diaphoretics, in conjunction with calomel, is the sheet-anchor of our hopes. Dover's powder, a peculiarly excellent diaphoretic in this complaint, on account of its conjoined anodyne and diaphoretic operation. Six grains of this article, with three or four grains of calomel, may be given every six hours. A combination of calomel, opium, and antimonial powder, an excellent diaphoretic anodyne. (O'Brien.) Cullen's objections to opium, in this disease, noticed and refuted. Observations on the great usefulness of this narcotic in dysentery.

Dr. Cheyne states, that, in the epidemic dysentery which prevailed in Ireland a few years ago, he met with many cases in which the ordinary plan of treatment by diaphoretics, purgatives, and calomel, made no impression on the disease. These cases
DYSENTERY.

were attended by intolerance of slight pressure on the abdomen, agonizing pain, unceasing tenesmus, and great pyrexia. In these cases, he derived the greatest advantage from opium, in four or five grain doses, in conjunction with bleeding, and scruple doses of calomel.

Calomel, with a view to its specific or constitutional operation, a valuable remedy in this disease. Ptyalism only proper in very protracted or chronic cases. Its beneficial operation chiefly dependent on its powers to excite the various secreting organs, particularly the liver, which is always torpid and congested in dysentery; and on its tendency to equalize the circulation.

Blisters, leeches, or emollient poultices to the abdomen, often highly beneficial.

Anodyne enemata, relieve the distressing tenesmus and tormina. The warm bath is also a very useful auxiliary remedy.

Balsam copaiva, a valuable medicine in chronic dysentery. (Pemberton, Cheyne, and Johnson.)

Astringents may, under certain circumstances, be advantageously employed; generally speaking, however, they do more harm than good. Other remedies mentioned, and their merits discussed.

CHRONIC ENTERITIS.

This modification of enteric inflammation, is of frequent occurrence. Its symptoms are often obscure and equivocal. Most of the cases usually termed marasmus, consist of chronic inflammation of the mucous membrane of the bowels. Chronic diarrhœa also generally depends on this grade of intestinal phlogosis.
CHRONIC ENTERITIS.

SYMPTOMS. No distinct abdominal pain; obtuse pain on firm pressure on the abdominal parietes; a sense of soreness also is felt; muscular debility; pulse small and weak; cold hands and feet; slight febrile exacerbations in the evening; pain in the bowels, or nausea, after taking food; frequently constant diarrhæa; in inveterate cases, the skin is dry and sallow; sleep interrupted; tongue smooth and red round the edges, and brown in the middle; great emaciation; painful diarrhæa, alternating often with costiveness; appetite variable, being sometimes voracious, at others entirely gone; the food is often evacuated from the bowels, in an imperfectly digested state; the alvine evacuations vary in appearance; sometimes slimy and small in quantity, at others copious, liquid, and dark. The disease continues for many months, and even for several years.

Causes. Sometimes the consequence of acute phlogosis of the mucous membrane of the bowels; irritating and indigestible food; the influence of a cold and damp atmosphere; drastic cathartics, and other irritating substances, whether received from without, or generated in the bowels.

Treatment. Leeches, or blisters to the abdomen; the former are generally thought the most valuable. Almost every thing depends on proper dietetic regulations. The food should be of the mildest kind, and “such as leaves the least feculence to pass along the intestines.” A liquid farinaceous diet must be enjoined; animal food, in a solid form, is improper. Barley, rice, oatmeal, tapioca, &c. are to be used in the form of soup, or gruel. Over-distention of the stomach, even by the
mildest food, is highly injurious. *Mild laxatives* are to be occasionally given; *active* articles of this kind, injure; castor oil will answer.

*Balsam copaiva*, a very valuable remedy.

*Spir. terebinth.* given in emulsion, often highly useful.

It may appear inconsistent to recommend *balsam copaiva* and *spirits of turpentine*, in this affection, after having declared that the most unirritating diet is a *sine qua non* in its treatment, and that *active* cathartics are injurious, on account of the irritation they produce in the phlogosed structure.

Whatever may be the conclusions of *reason*, on this subject, *experience*, which is always our best instructor, teaches, that both the articles in question are often decidedly beneficial in the present variety of intestinal phlogosis. There is nothing more extraordinary in this, than in what is observed in the treatment of some other varieties of inflammation. In *catarrhal ophthalmia*, soothing applications are undoubtedly proper; yet the application of a weak solution of lunar caustic, or of small portions of precipitate ointment, will very frequently produce an immediate amendment in the disease, whilst astringent washes seldom fail to do mischief.

*Opium*, with *calomel*, in small doses. The pulv. ipecac. composit.; mucilaginous drinks; and minute doses of pulv. ipecac., may be employed with benefit.

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CHAPTER XII.

INFLAMMATION OF THE LUNGS, AND THEIR APPENDAGES.

ACUTE PLEURITIS.

*Symptoms.* Pungent pain in the chest, much increased by inspiration; cough dry, or attended with a glairy and nearly colourless
Acute Pleuritis.

Sputa; pulse full and hard; difficulty of lying on one side; respiration chiefly performed by the abdominal muscles. When the inflammation extends to the substance of the lungs, there is generally bloody expectoration.

Causes. Sudden exposure to cold, when the body is in a state of free perspiration; atmospheric vicissitudes; metastases of gout, erysipelas, acute and chronic cutaneous affections, suppressed catamenia, rheumatism. It appears sometimes to depend on epidemic causes.

Autopsic phenomena. The pleura is red, and punctuated with an infinite number of red points; frequently covered with an immense number of milliary tubercles; false membranes sometimes adherent to its internal surface; adhesions between the pleura costalis and pleura pulmonalis; occasionally, effusions of a sero-purulent, or serous fluid, into the chest.

Prognosis. Acute pleurisy, not a very dangerous disease; its consequences to be dreaded, in persons predisposed to phthisis; the more the inflammation extends to the lungs, the more danger; the supervention of diarrhea, a fatal sign; convulsions and coma, no less unfavourable.

Peripneumony.

In peripneumony, the inflammation is seated principally in the substance of the lungs. It is characterized by the following

Symptoms. Difficult and oppressed breathing; dull pain in the chest; cough, with viscid sputa, mixed frequently with blood; pulse at first hard; afterwards weak, soft, obstructed,
Pleurisy is more liable to occur in full pleronic habits. Dr. Eberle has known an attack of pleurisy to result from the metatarsis of an arthritic affection of the elbow caused by the application of hot rose-mint as an embrocation to the affected elbow. The patient sometimes in this disease swes a great desire to sit up by which the difficulty of respiration is relieved. This is a dangerous symptom, it shows Eberle thinks, that the inflammation has extended to the bronchial tubes. I think it shows that effusion of serum or serum. The fluid has taken place into the cavity of the pleura, which in the erect posture sinks to the bottom of the pleural cavity, and does not press so much upon the lungs, thereby making respiration more easy. (Von.) Collection of matter in the lungs have been observed to occur after surgical operations. The matter is supposed to be taken up either by the veins or absorbed, carried into the circulation and deposited in the lungs. Smearings indicate the presence of pus in the thorax, imitating the diaphragm (Pechet).
In some Cases of peripneumonia the pulse from the Commencement is small, thready and weak, we may take a small quantity of Blood to watch the effects of the pulse rises, if it becomes more full, we may continue US without fear. If on the contrary the pulse becomes smaller US should be instantly stopped.

Bleeding should be practiced early in the disease, one large bleeding will be of more service than several small ones. Cathartics may be employed with advantage in early stage of the disease evacuation proper in the later stages, Blenters of good Service applied to the Vessels.

Diapharmatics of great advantage, E employ the following:

Mrs. Anderson.

Ext. Glycerin.

Dose: a table spoonful every 2 or 3 hours.

Jarl: Antim. per viii

Aquae

This disease begins to be noticed on the appearance of the peculiar thick viscid expectoration. The inhalation of Steam by means of a funnel promotes expectoration. When the expectoration is copious, Gumma should not be given.
PERIPNEUMONY.

and irregular; ability to lie on the sound side; the sputa are of yellowish, or greenish white; exceedingly tenacious; somewhat diaphanous, and intermixed with bubbles of air. (Lænnec.)

Autopsic phenomena. The structural changes classed under three heads:

1. Engoument, or choked lung. Lungs partially crepitous, of a livid colour, containing an abundance of frothy, serous fluid, in its substance.

2. Hepatized lung. Lungs not crepitous; resembling the liver in weight, consistence, and colour, having entirely lost its cellular structure, and acquired a granulated appearance, with no extravasated fluid in its substance.

3. Hepatized and granulated structure, with an abundance of an opaque, yellowish, viscid matter, in its substance. This fluid is the result of pulmonary suppuration. (Lænnec.)

Diagnosis. Peripneumony, distinguished from pleuritis, by:

Percussion. In peripneumony, the sound of the diseased side is obscure, and differs from that produced on the sound side, which is more clear. In pleurisy, percussion produces the same sound on both sides. Pressure made on the abdomen, in pleurisy, does not aggravate the pleuritic pain; in peripneumony, strong abdominal pressure immediately excites distressing involuntary cough, oppression, and a sense of suffocation. Position. In pleurisy, the patient lies on the affected side; in peripneumony, on the sound side. Pressure on the intercostal spaces, produces pain in pleurisy, but not in peripneumony;
the pain in the former is lancinating, in the latter it is dull.

Prognosis. Favourable signs: a copious expectoration of a thick yellowish matter; increased discharge of urine; general, but not profuse perspiration, with an abatement of the pain, oppression, and cough. Unfavourable signs: pain and oppression diffused; dry cough; or thin dark coloured expectoration; countenance livid; great dyspnœa; weak, soft, and frequent pulse; delirium; coma; internal feeling of cold, while the surface is hot; a copious and limpid urine in the commencement; rattling in the chest; disposition to elevate the head and shoulders, and bare the breast.

Treatment. Bleeding, all important; to be employed more cautiously in the advanced periods of peripneumony, than in pleurisy. Blisters to the thorax, indispensable; more efficacious than leeches; should be early applied. Cathartics, of the drastic kind, improper; mild laxatives beneficial. Emetics seldom useful. Diaphoretics, of considerable advantage; nitre, with tart. antimony, commonly employed; muriate ammonia, instead of nitre, recommended by Richter; I have often found it decidedly beneficial. Expectorants very useful, after the general febrile excitement has been moderated; the mildest and least stimulating articles of this class, should at first be used. I have found the following a most excellent expectorant, R. extract. glycyrr. : 3:ij. Kermes mineralis, gr. xv. tinct. thebaic. gr. : xl.; infus. polygalæ seneg. : 3:vi. M. dose, a table-spoonful every two hours. Opium, in conjunction with calomel, a most valuable medicine in peripneumony, after the disease has continued for three or four days. When the
PERIPNEUMONY.

Expectoration is copious, and of a proper consistence, opium should be given in very small quantities. The pills of Pariset answer a good purpose, under such circumstances—they consist of a fourth of a grain of opium, with a twelfth of a grain of tart. antimony—one to be taken every four hours. In pneumonic inflammation, from repelled cutaneous eruptions, measles, or scarlatina, camphor is, according to Richter, a valuable remedy—particularly when combined with pulv. ipecac. compos. Mucilaginous drinks, &c.

PNEUMONIA BILIOSA.

This variety of pneumonia is produced by the combined agency of marsh miasmata, and sudden atmospheric vicissitudes.

**Symptoms.** Along with the ordinary pectoral symptoms of pneumonia, there are others, indicative of much functional derangement of the hepatic system, such as: fulness in the right hypochondrium; pain in the back and limbs; yellowness of the tunica albuginia and skin; sometimes mucous and bloody discharges from the bowels, with tenesmus and acute head-ache. These symptoms generally precede the occurrence of the thoracic affection, for several days. The attending fever is somewhat remittent; bilious vomiting is frequent; tongue covered with a brown fur; pulse commonly small, quick, frequent, and slightly tense.

**Treatment.** Great discrepancy of opinion on this subject; some recommend very copious bleeding—others condemn it, and I think with propriety.
Emetics are of primary importance. Gentle laxatives are to be daily employed—for this purpose, calomel, with ipecacuanha, answers exceedingly well; from ten to fifteen grains of the former, and six or eight grains of the latter, generally vomits once or twice, and procures several bilious stools afterwards. Blisters less serviceable in this than in the preceding varieties of pneumonia. Opium, in conjunction with calomel, a remedy of great value. Expectorants, useful; diaphoretics, of minor consequence.

**ACUTE BRONCHITIS.**

This variety of pulmonary inflammation is generally described under the name of *peripneumonia notha*. It consists of acute inflammation of the mucous membrane of the bronchia, with great sanguineous congestion of the lungs. Much of the peculiar character of the disease depends on this congestion. Old people and infants most subject to it.

**Symptoms.** Great oppression and tightness in the breast; cough; severe pain in the forehead, greatly increased by coughing; expectoration; at first, a viscid and frothy white mucus, becoming mixed with blood, as the disease advances; sometimes vomiting; febrile excitement not violent; pulse, and heat of the surface, not much above the natural standard; tongue moist and white; countenance pallid; little or no pain in the chest; the pain is dull, and attended with very oppressed breathing; vertigo; delirium seldom; wheezing respiration.

There is in this disease a particular tendency to effusion into the substance of the
Acute Bronchitis or Pneumonia no less is closely allied to Common Cataract. Palidity of Cœuntenance from the commencement in children till effusion takes place into the lungs when the countenance becomes some what flushed & turgid. In this disease there is always great sanguineous congestion in the lungs which is the cause of the suppressed breathing also the cause of the intense headache by the return of blood from the head being interrupted. Death from this Disease is always preceded by coma and is the consequence of effusion into the cells of the lungs of a vitricous poison. This is a common and very fatal disease amongst children its presence in very young children is manifested by the palsied countenance by the screams of the child after coughing and the hand being raised and placed against the forehead.
TREATMENT. Bloodletting useful in the commencement of the disease. There is great tendency to prostration during convalescence. The strength of the system must be sustained by wine, coffee, nourishing food.

Cynanche Tracheali, or Croup, Children almost wholly an atrophy from this disease. Most often it occurs between the age of 3-7 years. Sometimes it occurs in adults. It has been 2 cases to occur between the age of 30-40 years. He has known this disease to become dangerous in 1/2 hour after its appearance; death occurs as much in consequence of the mucus which is so plentifully secreted, blocking up the air cells of the lungs, as from suffocation.

TREATMENT. The production of syncope is almost a sine qua non. He has known the necessity for syncope to abate further medical interference after syncope by V.S an emetic should be given & I employ. Calomel in a large dose to produce Emetic & subsequently purging. Rubifacient to the throat & Swells & Canthikard Scotch Tincture as a mixture to Broad's & Rock's. Almost in.
lungs; and it is generally from the occurrence of this circumstance, that the disease proves fatal.

Autopsic phenomena. The lungs do not collapse; bronchia filled with a tough mucus, mixed with bloody serum and pus; a frothy fluid escapes from the substance of the lungs, when cut into; capillaries of the mucous membrane, red and enlarged; sometimes, the pulmonary structure is more or less hepatized. The mucous membrane of the bronchia is manifestly the principal and primary seat of the disease.

Prognostic observations. Ratio symptomatum. Diagnostic phenomena.

Treatment. Moderate bleeding, in the commencement, often beneficial—hazardous, after the disease has made some progress; cathartics of the active kind, injurious—not so, mild aperients. Emetics among the most useful remedies, in this disease; they may often be advantageously repeated two or three times. Expectorants of the stimulating kind, such as polygala senega, and gum ammonia, are beneficial. Active stimulants must be given with the expectorants, when the pulse becomes very small, frequent, and soft. Camphor, and carbonate of ammonia, are the most valuable for this purpose. Opium, less serviceable in this than in the preceding varieties of pneumonic disease. In the commencement of the disease, small doses of opium and calomel allay the cough, and promote expectoration; but after expectoration is fully established, opium tends to produce dangerous engorgement of the bronchial cells, by allaying the desire to cough, and consequently to expectorate the mucus so copiously secreted by the bronchial glands. Blister can never be omi-
ted with propriety. I have seen much benefit derived from large emollient poultices applied to the thorax. Diaphoretics, of the mildly stimulating kind, are useful remedies in this disease—such as: infusions of eupatorium, sage, balm, the spiritus mindereri, with laudanum, pulv. ipecac. compos. &c. The inhalation of the steam of warm vinegar and water.

CHRONIC PLEURITIS, AND CHRONIC BRONCHITIS.

As these two varieties of pulmonary inflammation are generally attended with symptoms similar to those which occur in phthisis pulmonalis, I shall treat of them under the general head of Pulmonary Consumption.

CYNANCHE TRACHEALIS.

Character. An inflammation of the glottis, larynx, and upper part of the trachea, attended with a hoarse and ringing cough, sonorous respiration, and a sense of suffocation.

Symptoms. It commonly comes on gradually:—At first, a hoarse cough, with slight difficulty of breathing; afterwards fever, respiration becoming more and more difficult, each inspiration being attended with a peculiar ringing sound; countenance full and flushed, during the first stage. The dyspnœa becomes at last exceedingly great; the head is thrown back, and the mouth kept open; the eyes are prominent, and the countenance pale, livid, and expressive of great agony; the breathing becomes wheezing, in the latter period of the disease; expiration is quick, inspiration difficult and slow; cough sometimes attended with
CYNANCHE TRACHEALIS.

a rattling sound, and the expulsion of very tough mucus. Insensibility and stupor generally close the scene. The symptoms occasionally remit for a short time.

Causes. Exposure to a cold and damp air, the most common cause; most prevalent in spring and autumn; children between the ages of one and seven years, almost exclusively the subjects of this disease—it very rarely occurs in adults.

Ratio symptomatum. The suffocated respiration may depend on one or more of the following circumstances:—1. Tumefaction and inflammation of the glottis; 2. Obstruction of the glottis by coagulable fluid, in the form of a false membrane or a concrete mass; 3. From the inflammation extending to the minute ramifications of the bronchia, and giving rise to effusion into the air-cells.

Prognosis. The disease is always to be regarded as highly dangerous. The more the inflammation extends into the bronchia, the greater the danger. When the attack comes on suddenly, with high febrile excitement, there is more danger than when its approach is gradual. Very shrill sounding cough and respiration, unfavourable. In general, however, it is difficult to form a correct prognosis.

SPASMODIC CROUP, essentially distinct from inflammatory croup. They may be distinguished by the following circumstances—viz. Spasmodic Croup is sudden in its attack, and unattended with fever—Cynanche Trachealis generally comes on gradually; when its attack is sudden, it is always with fever. In the former there are intermissions, in the latter remis-
sions only. Cough, with a discharge of viscid mucus from the trachea, always present in inflammatory croup—in spasmodic croup, coughing is rare, and always dry. In the latter, no shrillness of voice—the pulse small and contracted.

TREATMENT. Bleeding, to syncope, or an approach to it, in the early period, of the utmost importance; during bleeding, the feet should be placed in warm water. The advantages of bleeding almost entirely confined to the first stage. Emetics next in importance to bleeding. Calomel, with a small portion of tart. antimon. an excellent article for this purpose—preferable, I think, to tart. antimon. alone. Emetics often operate with great difficulty, after the disease has continued for some time—the cause of this explained. The warm foot bath, and bleeding, promote this operation. Emetics do good, by discharging the viscid mucus from the trachea, and by equalizing the circulation. Cathartics are valuable remedies, in this disease. Calomel is the best article for this purpose—large doses, by exciting vomiting as well as purging, peculiarly beneficial.

From ten to fifteen grains may be given to children of from two to five years old. This quantity hardly ever fails to excite active purging and vomiting. The nausea, and consequent relaxation produced by calomel, are generally of much longer duration than that which is caused by the usual emetics; and in general, the impression made on the disease by this medicine, is much more permanent than that which results from the operation of other emetic and cathartic substances.

The tincture of lobelia inflata, very useful as an emetic, in this disease. Errhines employed with benefit.
Calomel, with a view to its constitutional influence, highly recommended by some. Blisters and rubifacients to the throat, never to be neglected—the latter are preferable, from the suddenness of their effects. Spir. turpentine, with spir. camphor, excites inflammation in a few minutes. The warm bath, a very useful auxiliary remedy. Polygala senega, useful in slight cases, and for the sequelæ of violent cases, such as a dry and hoarse cough, with slight difficulty of breathing.

Kali sulfuratum strongly recommended, of late, in this disease. (Double, Mesner, Senff, Albers, Jurine.)

This remedy does not deserve the praise bestowed upon it by some late continental writers. It appears, nevertheless, to be useful in slight cases, and is said to be particularly beneficial only about the period when the exudation of the coagulable fluid occurs. (Raiman.) Our success in the treatment of this disease, depends almost wholly on being able to subdue the tracheal inflammation before the exudation of the viscid mucus takes place; a vigorously antiphlogistic treatment, in the commencement, is therefore the only mode of treatment upon which any reliance can be placed. After the exudation has taken place, our principal object should be, to expel the mucus from the trachea before it has time to concrete, by the occasional use of emetics.

The application of a solution of lunar caustic to the upper part of the larynx, and about the tonsils, has lately been recommended as useful in separating the false membranes which form in and about the glottis, in this disease.

CYNANCHE TONSILLARIS.

Character. Inflammation of the tonsils, soft palate and fauces, with synocha fever.

K
Symptoms. Tonsils, and soft palate, red and much swollen; deglutition very painful and difficult,—sometimes impossible; more difficulty in swallowing liquids than solids; respiration impeded; speech indistinct; hearing dull; tongue swollen, white, and covered with a thick layer of transparent mucus; pulse full, hard, and frequent; copious secretion of a ropy saliva.

Cause. Cold and damp air; or cold, in any manner applied, so as to cause a sudden check to the perspiration, may be regarded as the exclusive cause of this disease. Persons become predisposed to the disease, by suffering an attack of it. The principal danger arises from the swelling of the tonsils, which may proceed to the extent of entirely interrupting respiration. When it does not end in resolution, it almost always terminates in suppuration. Frequent attacks of the disease are apt to produce permanent enlargement of the tonsils. The inflammation has been known to extend into the larynx, in which case the danger is greatly increased.

Treatment: strictly and actively antiphlogistic. Scarifying the tonsils; emollient and acidulated gargles; warm pediluvium; blisters and leeches to the throat; emetics; nauseating doses of antimonials.

Parotitis.

Character. Inflammation and tumefaction of the parotid glands, occasionally epidemic, and manifestly contagious.

Symptoms. Hard swelling of one or both parotids—the swelling increasing till the fourth day, and then declining gradually. Skin over
PAROTITIS.

the tumour seldom red or inflamed; the breasts in females, and testicles in males, often swell, about the period of the declension of the parotid tumefaction; a sudden metastasis often takes place from the parotids to these parts. Fever generally mild, sometimes violent.

Children, and young persons, are most subject to this disease—it rarely occurs in old age. It is most common during cold and damp weather.

Prognosis. Not in general a dangerous affection; becomes more or less dangerous, by being translated to other parts—as the genital organs, the lungs, the brain, the stomach. I have known a case terminate fatally in less than an hour, by metastasis to the brain; when transferred to the testicles, they occasionally suppurate—an occurrence always exceedingly painful, and sometimes fatal.

Treatment. In mild cases, little more is necessary than keeping the bowels open, and using gentle diaphoretics. The parts should be kept warm—great care must be taken, to avoid taking cold. When the inflammatory symptoms are violent, an active antiphlogistic treatment is necessary. When the swelling disappears in the neck, and shows itself in the testicles, a blister should be laid on the parotids, and every effort made to excite a general diaphoresis. To discuss the hard swelling which sometimes remains after the inflammatory symptoms have disappeared, frictions on the tumour, with mercurial ointment, spirits of camphor, or rubifacient liniments, should be used.
CHAPTER XIII.

ACUTE PERITONITIS.

Symptoms. At first, lassitude, pain in the limbs, chills; then, head-ache, a sense of weight in the epigastrium; an acute pain in some part of the abdomen, at first confined to a small space, but soon extending itself over the whole belly: the pain is acute and constant—sometimes fixed, and at others wandering from one part to another. As the disease proceeds, the abdomen becomes tumid, and exceedingly painful to pressure. The patient's position is on his back, with the knees and shoulders raised, carefully avoiding all motion of his body. The bowels are constipated, and moved with much difficulty; pulse commonly small, hard, and quick; tongue white and moist, the edges and raphe being sometimes very red; nausea and vomiting, in the early stage; the face is generally pallid, exhibiting a peculiar sharpness of feature. Constant wakefulness, throughout the whole course of the disease; delirium, except towards the end of fatal cases, rare; breathing, in the latter period, laborious—inspiration being particularly difficult, and attended with an expression of pain in the countenance; suppression of urine, a common occurrence. When the disease occurs in the puerperal state, the lochia cease, and the breasts become flaccid. Peritonitis is rapid in its course.

Causes. Mechanical injuries of the abdominal viscera; violent and long-continued corporeal exertions; stricture of the colon and rectum; extravasations of blood, bile, urine, faces,
Peritoneal inflammation may occur from mechanical injuries, of the person of the abdomen, from perforation of enlarged vesicles, and from the violent internal congestion in acute stage of intermittent fever. It also occurs from putrification. Constitutional pericardial fever.

In the latter period of the disease when the disease tends toward a fatal termination, suppression of urine occurs, as well as hiccup, the catheter should be freely used. When the pain about the chest, hiccup, take place from the heart, the patient can breathe more freely, and turn about in bed. We may presume that the disease is about to terminate favorably. When death occurs from this disease, effusion of lymph is found in the cavity of the abdomen. Sheel has found a mention in the abdomen resembling ced. The pain does not in this disease terminate suddenly, like it sometimes during fevers. But the inflammation subsides gradually, and the patient is not free from pain altogether for 5 or 6 days.
Treatment. The first bleeding should be carried far enough to produce a decided impression on the disease.

Chronic Peritonitis, the distention of a boll rolling about in the cavity of the abdomen is attributed to the intestine becoming fluid together by the interposition of coagulating lymph, sometimes the peritoneum is covered with minute tubules resembling bulling tubules of the skin, Broussais accounts for the difficulty of curing the disease by stating that a tuberculous matter is effused between the layers of the peritoneum which cannot be removed by absorption and that irritation constantly kept up by this matter, he says that if the disease is not cured in 30 days after its interposition that this matter is deposited so that there is little hope of a cure. Broussais asserts that he has cured this disease by mercurial friction, 100 to induce slight pyrexia.
ACUTE PERITONITIS.

chyle, &c. into the cavity of the abdomen; the action of cold on the surface of the body; wet and cold feet; drinking cold water when the body is in a state of free perspiration; parturition; sudden suppression of hæmorrhoidal discharge of lochia, &c.

Prognosis. Favourable symptoms. Abatement of the pain; ability to bear abdominal pressure; a soft, moderately full, and not very frequent pulse; moist and warm skin; free alvine evacuations; power of changing the position, and resting easy on either side; free discharge of urine; restoration (if in the puerperal state) of the lochia; refreshing sleep.

Unfavourable signs. Suppuration, or effusion, is indicated by, diminution of abdominal pain; a feeling of weight in the hypogastric region; irregular chills; coldness of the extremities; a soft and feeble pulse. Gangrene, by sudden and entire cessation of pain; extreme smallness and frequency of the pulse, with great prostration; Hippocratic countenance.

Autopsic phenomena. Redness and thickening of the peritoneum; false membranes. A collection of fluid, sometimes turbid or whey-like, at others limpid and reddish—rarely blood. Adhesions between the bowels are common. Gangrenous spots, and red flakes adhering to the peritoneum.

The dissections of Broussais, Abercrombie, and others, show, that the peritoneum investing the stomach, intestines, liver, &c. may be inflamed, and even gangrenous, while the structures of these organs themselves remain perfectly sound.

TREATMENT. Prompt and very copious deple-
tion in the commencement, is the principal remediate measure to be relied on. From thirty to forty ounces of blood, drawn soon
after the development of the disease, will often subdue it so much as to secure a speedy success in removing it. The benefit of bleeding is confined chiefly to the first twenty-four hours: during this period, the bleeding may be repeated two, three, or even four times, according to the violence of the inflammatory symptoms.

Leeching the abdomen, highly beneficial; after the leeches are removed, emollient poultices or fomentations should be applied.

Purgatives, of the active kind, do much good; they should not be given, until decisive bleeding has been practised. From the torpor of the bowels, large doses are required: the more active the purgative, the more good will it do. Calomel, followed by castor oil and spirits of turpentine, decidedly the most valuable purgatives, in peritonitis. Calomel and jalap will often answer.

After the local and general inflammatory symptoms have been somewhat reduced by the foregoing means, opium, in combination with calomel, is a remedy of great efficacy. Cathartics may be effectively employed, at the same time that opium is used. Large doses of opium in this disease, as in enteritis, promote the operation of cathartics. (Armstrong and Johnson.) The warm bath, a very useful auxiliary. Blisters to the abdomen, important. Antimonials seldom admissible, on account of the great gastric irritability. If collapse ensues, wine and ammonia must be given. Diet, of the simplest and most unirritating kind.
When not the consequence of the acute form of the disease, its approach is so gradual and insidious, that it rarely becomes the object of medical attention, until organic disorder or effusion has taken place.

Symptoms. A constant feeling of uneasiness in the abdomen, with soreness to pressure, or sudden motions of the body, as coughing; sneezing; the skin and abdominal muscles often lie loosely over the peritoneum, giving a sensation to the touch, as if a tight bandage were underneath, over which the skin and muscles easily slide. (Pemberton.) Sometimes, a sensation as of a ball rolling about the abdomen, is experienced. (Broussais.) Pulse rarely affected, except towards the evening, when it becomes slightly accelerated. The duration of the disease very variable—from a few months to several years. Very rarely cured—Broussais, at first, thought it incurable. It always terminates either in effusion or disorganization of the peritoneum—most commonly, in both these ways. The effused fluid is either serous, limpid, whey-like, or reddish, with purulent flakes; the peritoneum is thickened, or covered with an infinite number of milliary tubercles; the intestines are often found agglutinated into one mass.

Most cases of incurable ascites depend on chronic inflammation of the peritoneum, and consequent structural derangement. Indeed, it is not improbable, that in all cases of dropsy of the abdomen, the peritoneum is in a state of chronic or sub-acute inflammation. In treating of dropsies, this subject will be fully discussed.
TREATMENT. External vesicating or rubifacient applications are of primary importance. Blisters, cupping, and frictions with tartar emetic ointment, are the best; moxa is a powerful agent. Diuretics are recommended. Dr. Johnson speaks highly of the following diuretic mixture. R. acid. tartar. 3j. Sodae carbon. gr. xxiv. Infus. digital. 3ss. Sper. nit. dulc. 3j. Tinct. scillae gtt. iv. Aq. menthae 3jij. m. ft. This draught is to be taken two or three times daily.

Gentle laxatives, such as cream of tartar and acetate of potash, are to be employed. Small doses of calomel and diuretics given conjointly; diaphoretics also; particularly antimony with minute portions of opium, may be beneficially employed.

Perfect rest and quietness, are of great importance. (Broussais.) Anodynes—particularly hyocyamus, and conium maculatum, are serviceable. A simple and unirritating diet indispensable.

ACUTE HEPATITIS.

Symptoms. Acute pain in the right hypochondrium, aggravated by external pressure, and generally by lying on the left side; pain in the shoulder and clavicle of the right,—sometimes the left side; commonly a dry cough, with difficulty of respiration; nausea and bilious vomiting; generally an icteric hue of the albuginea and skin; urine charged with bile; scalding of the urine; thirst great; heat of the surface intense; tongue white or covered with a yellowish fur; pulse hard, full, and strong; bowels costive. In hot climates, acute hepatitis is often attended from the beginning, with small liquid and slimy dischar-
The pain in the Shoulders, felt in this disease is also attendant on many cases of inflammations of the pleura. But when it is accompanied by the intense heat of body, we may be certain that the liver is the seat of the disease. There is an intimate connection between the liver & the brain; frequently in hepatitis we have violent delirium occurring and absence of the liver has occurred in consequence of a wound of the head.

The passage of a pearl stone through the bile duct, exciting spasm may be distinguished from hepatitis by the absence of fever in the former & the pulse being slower above 90. By complete interruption the pain, enlargement & debility of the liver is the consequence of hepatitis when it has passed into the chronic form.

Lauderdy, ascribes Acute hepatitis to inflammations of the cadaverus of the hepatec artery, and Chronic hepatitis he ascribes to inflammation of the cadaverus of the Vena porte.

January 1st 1828
Treatment

After copious V.S. by which the inflammation has been in some measure reduced, he gives a large dose of Calomel 30 gr., following it in an hour with an active dose of O.T. Ricin. 10 listers are of the greatest service.
ACUTE HEPATITIS.
ACUTE HEPATITIS.

Hepatitis, if it does not end in resolution, generally terminates in suppuration. The degree of danger from suppuration, depends much on the situation of the abscess, and the nature of the contiguous parts. When the abscess points outwardly, it may be opened by an incision, and the matter discharged externally. It sometimes breaks into the bowels, the matter being discharged by stool; occasionally it bursts through the diaphragm into the cavity of the thorax, or into the substance of the lungs, in which latter case, the matter is expectorated. Recoveries after this latter accident exceedingly rare; always fatal when it bursts into the cavity of the abdomen.

Gangrene an exceedingly rare termination of hepatic inflammation. Doctrines of Saunders and Puchelt concerning the pathology of acute and chronic hepatic inflammation, introduced and discussed.

Causes. The influence of cold after profuse perspiration; violent exercise; contusions of the region of the liver; wounds and injuries of the cranium; the irritation of biliary concretions; suppression of hemorrhoids; violent rage, or deep sorrow; excessive use of spirituous liquors. Dr. Johnson’s cutaneous-hepatic sympathy, and its application to the ætiology of hepatitis, noticed.

Hepatitis most common in hot climates; solar heat and miasmata prominent agents in the production of this disease—they powerfully predispose to, rather than excite, the disease: heat excites the skin, and miasmata the liver, to inordinate action; the cold night air checks the former, and consecutively the latter; fever is evolved, and inflammation established in the liver.
In chronic Hepatities though the liver is almost always enlarged and indurated especially in heavy drinkers of long standing yet a reducible contracted or shrunken state is the result occasionally. This disease in warm climates is much more rapid in its progress and more disposed to terminate in suppuration. The Mercury remedy of nitric acid is an excellent remedy in an alternative. Where there is troublesome cough attending this disease, the gum ammoniac is a valuable article.

At the time we are employing mercury one or 2 evacuations from the bowels should be had daily, small doses of rhubarb. He has received the nitric or hydrochloric bath to cure this disease in instances after the mercury had failed. And 2 or 3 months, this remedy seems to be particularly useful when the mercury does not exercise its usual beneficial effects. In one of the cases in which the bath was used an abscess had formed in the liver of course healed when the patient recovered.
ACUTE HEPATITIS.

TREATMENT. Bleeding, both with a view of reducing the general inflammatory condition of the system, and, by this effect, of promoting the operation of mercurial remedies. Bleeding and mercurial purgatives, with an epispastic to the right hypochondrium, constitute the important remedies during the first few days. Having reduced, by adequate depletory measures, the general febrile excitement, our main object must be to bring the system under the influence of mercury as speedily as possible. Calomel and opium in combination, a very excellent article for this purpose. Purgatives of primary importance throughout the whole course of the disease; calomel should form a part of them. Antimonials, with nitre, useful auxiliaries.

CHRONIC HEPATITIS.

Symptoms. Dyspeptic symptoms; countenance sallow, contracted, and expressive of ill health; dull pain, with uneasiness, tension, and sometimes tumefaction in the right hypochondrium; bowels irregular, commonly costive; sometimes diarrhoea alternating with costiveness; aching pain in the right shoulder; urine tinged with bile, and voided with a scalding pain; tongue white, rather dry; gums unnaturally hard; a continued dryness and constriction of the skin; difficulty of resting easy on the left side; a short and dry cough; slight febrile exacerbations, as the disease advances; emaciation, and finally, hectic with a puruloid expectoration. Chronic hepatic inflammation, Terminates: occasionally in suppuration; more frequently in induration and enlargement; sometimes the volume of the liver becomes contracted. Though indurated, and
more firm in its substance than natural, it is often specifically lighter than in its healthy state. (Saunders.) The substance of the liver usually exhibits an ash or clay colour.

Causes. Chronic hepatitis sometimes the consequence of the acute form of the disease. Most frequently the result of the slow operation of the same causes that produce acute hepatitis, i.e. the slow and constant operation of marsh miasma, &c. The abuse of spirituous liquors, a common cause of chronic hepatitis. Protracted dyspepsia produces it.

Treatment. A strictly antiphlogistic regimen, aided by mild aperients, and blisters over the region of the liver, are important auxiliary measures for reducing slow hepatic inflammation. Without mercury, however, these remedies would be of little avail; it is upon this potent medicine that we must principally depend for success in the treatment of hepatic inflammation, whether of an acute or chronic character. Ptyalism must be avoided; the slightest manifestation of the mercurial influence is sufficient. A mild and protracted course of mercury will do most good. The nitro-muriatic acid bath, much extolled by Dr. Scott; it is undoubtedly a remedy of considerable powers in the cure of chronic hepatitis. The nitric and muriatic acids, in the proportion of two drachms of each to a gallon of water, will make a bath of proper strength. It should be heated to the temperature of 96°, and the feet and legs immersed in it for half an hour, just before going to bed.
Nephritis.

Symptoms. Pain in the renal region; frequent and small discharges of high-coloured urine; nausea and vomiting; numbness of the thigh of the affected side; retraction of the testicle; pain relieved by bending the body forwards or towards the affected side; costiveness; skin hot and dry; pulse full and strong.

Diagnosis. In inflammation of the psoas muscle, bending the body forwards increases the pain; there is no nausea and vomiting, nor retraction of the testicles, in this affection, as in nephritis.

Causes. The influence of cold; mechanical injuries; irritating substances absorbed into the circulation, as turpentine and cantharides; violent exercise, as jumping, lifting heavy weights; metastasis of gout and rheumatism; calculus concretions.

Unless resolution takes place before the seventh or eighth day, suppuration generally ensues. The pus sometimes discharged with the urine; the suppuration often continued for a long time—producing hectic and great emaciation, or what has been called tabes renalis. Sometimes the matter points externally; in which case, fistulous openings are apt to remain. A puruloid fluid in the urine not to be confounded with pus. The former may arise from mere irritation, from urinary calculi in the kidneys, or sub-acute inflammation of the neck of the bladder. Puruloid matter distinguished from pus, by the latter fluid sinking down and forming a close layer along the bottom of the vessel in which the urine is left standing;—puruloid fluid remains
more or less suspended in the urine. Gangrene a very rare occurrence in renal inflammation.

Nephritis is apt to leave a predisposition to lithic-acid calculi. (Prout.)

**TREATMENT.** Decisive, general, and local bleeding. Cupping over the lumbar region particularly beneficial; active purgatives required; much relief obtained from emollient enemata, and constant fomentations to the region of the kidneys; warm bath; sinapisms; blisters generally condemned, on account of the tendency of cantharides to irritate the urinary organs; I have found them highly beneficial, and never injurious. Anodyne enemata after the inflammation has been somewhat subdued, useful. For the pain and soreness left by an attack of nephritis, uva ursi is a valuable remedy—highly useful, also, when suppuration or ulceration exists. Opium advantageously given with uva ursi, in nephritic cases; one-fourth of a grain of the former, with fifteen or twenty grains of the latter, should be given thrice daily. Nitre not a proper remedy in nephritis. Antimonial diaphoretics beneficial, if the stomach will retain them.

**CYSTITIS.**

**Symptoms.** Severe burning and throbbing pain, with a feeling of constriction in the hypogast- tric region;—pain greatly increased by pressure; constant and ineffectual desire to pass urine; pulse frequent, hard, and full; skin dry and hot; thirst very urgent; great rest- lessness; nausea and frequent vomiting; stillicidium of the urine; as the disease proceeds,
swelling in the loins; rigors; cold extremities; delirium, &c.

**Causes.** Mechanical irritation by the presence of foreign bodies in the bladder; retained urine; external injuries on the hypogastric region; irritation from acrid substances absorbed and conveyed to the bladder, as cantharides, turpentine, &c.; metastasis of rheumatism; irritating injections into the urethra; gonorrhea; suppressed perspiration, from the sudden application of cold.

**Treatment.** Cystitis rapid in its course, and highly dangerous. The most prompt and decisive depletion is necessary; local bleeding, by leeches or cups, from the pubic region and perineum, of great importance; fomentations and emollient enemata, efficient auxiliaries; sinapisms after proper depletion. Internally, opium with calomel, in frequent and large doses. (Prout.) Blisters of doubtful propriety; bowels to be kept open by laxative enemata; cathartics seldom advantageous; the urine to be drawn off by the catheter, and emollient fluids injected into the bladder. Nitre is injurious.

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**CHAPTER XIV.**

**ACUTE RHEUMATISM.**

**Character.** Inflammation in the fibrous structures about the joints, wandering, and attended with severe pain, more or less swelling, and synocha fever.
**ACUTE RHEUMATISM.**

**Symptoms.** Chills, alternating with flushes of heat, total inappetency, general soreness of the flesh, and lassitude, introduce the disease. After some time, usually about twenty-four hours, the rheumatic inflammation manifests itself. One or more joints become swollen, red, and extremely painful, the pain being greatly aggravated by motion; pulse full, hard, and frequent; bowels constipated; skin hot, and often covered with profuse perspiration; remissions in the morning, and nightly exacerbations. The inflammation generally passes from joint to joint. The blood is always huffy.

Rheumatism rare in infancy and old age. Most common between the ages of sixteen and forty-five. Very fat persons less subject to it than lean and muscular ones. A predisposition to rheumatism sometimes hereditary; derangement of the digestive functions predisposes to it—so does the excessive use of spirituous liquors, and the imprudent use of mercury.

**Causes.** The influence of variable temperature almost the only exciting cause.

*Rheumatic inflammation* seated in the fibrous textures of the body; essentially distinct from common inflammation; shifts its place like gout; metastases to important internal organs, always very dangerous; rarely terminates in suppuration; *never terminates in resolution, without the concomitance of general, but not profuse, perspiration, and the deposition of a lateritious sediment by the urine*. Neither of these occurrences to be regarded as critical, when they appear separately; a very copious sweat is no uncommon occurrence in this disease; but it is never attended by any
V.D. cannot be depended upon to cure the inflammatory general or local state. He has known copious V.D. to perceptibly diminish the local inflammation as well as the general pathologic state of the system. But frequently V.D. taken extensively, publicly will fail to afford relief and when the patient becomes aware from excessive V.D. that disease is apt to translate itself to some weak internal organ, particularly the heart. Professor Horn states that he has been failed in the treatment of this disorder, he gives an emetic daily, till 12 or 15 have been taken. Eberle has treated Phrenicotomy by emetics with benefit; in one case, he gave twenty emetics which caused emesis, followed by diminution of the pain which however again increased, and was again cured by an emetic, after the 4th emetic the pain was almost entirely gone and yields to slight local stimuli, in this case bile was discharged at every emesis, the patient was directed to the use of acid or Sfs. Emetics in this case might have been beneficially applicable he thinks, that the same beneficial results will not always follow the use of emetics. Opinion should be given when resorted to in large doses.
marked abatement of the rheumatic symptoms, unless the urine, at the same time, deposits a red sediment. Rheumatism is seldom fatal, except by metastasis to important internal parts.

*Acute rheumatism*, occurring in persons exposed to the influence of marsh miasmata, assumes a modified character. There are, in such cases, conjoined with the rheumatic affection, prominent symptoms of derangement of the biliary organs—such as, an icteric hue of the tunica albuginea; a brown and bitter tongue; great head-ache; bilious vomiting, &c. After each act of vomiting, the pains remit. This variety of the disease has been called *bilious rheumatism*.

**Treatment.** *Bleeding*, an important auxiliary remedy, though not by itself adequate to subdue rheumatic inflammation. Its employment necessary to moderate the general and local inflammatory action, and thus to prepare the way for the beneficial operation of other remedies. Buffy blood, no indication, in this disease, for further depletion. Excessive blood-letting favours metastasis to internal parts. (Johnson.) An early translation of the disease to the diaphragm, heart, or other internal viscus, demands prompt and copious blood-letting, followed by full doses of *opium* with *calomel*.

*Cathartics* always decidedly beneficial; they often subduct the general inflammatory excitement more effectually than bleeding. *Calomel*, followed by *sulphas sodæ*, or *sulphas magnesia*, the best purgatives. Violent purging not proper—being incompatible with that regular action of the cutaneous exhalents,
which is indispensable to the removal of this affection.

**Emetics.** Recommended by Haygarth and Horn. I have known the operation of an emetic to procure immediate relief of three or four hours’ duration. In *bilious rheumatism*, *(acute gastric rheumatism* of Richter), emetics are, very generally, promptly and decidedly beneficial. Tart. antimon. the best emetic.

**Sudorifics.** Profuse perspiration is seldom beneficial, but often injurious. *Gentle diaphoresis*, however, is always serviceable. Antimonials, in small doses, with calomel, or pulv. ipecac. compos. so managed as to keep up a moderate action of the cutaneous exhalants, will assist very materially in subduing the disease. Tart. antimony, in the proportion of two grains to eight ounces of water, given in doses of a table-spoonful, every three hours, has been found very efficacious.

**Opium.** A valuable remedy, under proper management—not to be used until the general inflammatory excitement has been moderated by depletory measures—to be used in large doses, conjointly with tart. antim. calomel, or ipecac. Large doses have less tendency to increase the phlogistic diathesis, than small ones. After proper depletion, three or four grains should be given at once. Calomel and opium, particularly valuable: two grains of the former, and one of the latter article, to be given every three or four hours, *until the gums become slightly affected*. Ptyalism to be avoided. In the sub-acute form of the disease, mercury is particularly beneficial.

**Colchicum.** A very valuable remedy, both in acute and chronic rheumatism. The vinous
tincture generally employed, in doses of from thirty to forty drops every four hours, with a small portion of magnesia. I have known violent cases of the disease yield speedily to this remedy. Its effects are to be carefully watched; for given in over doses, or continued too long, it produces great prostration, violent vomiting and purging, cold sweats, syncope, and convulsions. The following formula for using the colchicum, is recommended by Scudamore: R. Magnes. calc. gr. xx. Sulph. magnes. 3j. Tinct. colchici. vinos. 3j. Aq. fontanae, q. s. To be taken at once, and repeated every four hours.

Extract of Stramonium, a powerful and efficacious remedy in acute rheumatism, after the inflammatory symptoms have been moderated. (Marcet.) I have repeatedly employed it, with signal advantage. It is to be used with great caution, on account of its effects on the brain—the most singular and violent maniacal state of the mind being readily caused by it. Of the best extract, a quarter grain is sufficient to begin with, to be very gradually increased to one grain, and continued until vertigo is produced.

Local applications. Cold water, applied to the inflamed joints, generally gives temporary relief, but has a tendency to produce sudden translation of the disease to internal parts, and consequently to do mischief. Scudamore's liniment, composed of one part of alcohol, with three parts of camphorated mixture, a valuable topical remedy. Blisters, after the inflammatory excitement has been moderated, often decidedly advantageous. Leeching too much neglected—I have frequently known the application of a large number of leeches.
to a joint, procure immediate and permanent relief.

Pressure and tight bandages recommended by Balfour. Observations on this practice—sometimes beneficial, in the sub-acute form of the disease.

CHRONIC RHEUMATISM.

**Symptoms.** Little or no swelling or redness of the parts affected; no fever; pain sometimes confined to one or two joints—more frequently wandering from joint to joint—sometimes felt only on motion. In some instances, the rheumatic affection is persistent; in others, after having continued for a time, it goes off, leaving the parts somewhat stiff and debilitated. The skin is generally dry and harsh.

**Sequelæ.** A thickened and knotty state of the tendons; hardness of the bursæ mucosæ; wasting of the muscles about the affected joints; rigidity and thickening of the ligaments, and consequent stiffness of the joints, are consequences of severe and protracted chronic rheumatism.

**Diagnosis.** Chronic rheumatism in the muscles of the loins, (lumbago), distinguished from nephritis by the aggravation of pain on bending the body forwards, as well as by the absence of nausea and vomiting, retraction of the testicle, and urgent desire to pass urine, which characterize the latter complaint.

Mercurial or syphilitic rheumatism, distinguished from rheumatism produced by other causes, by the periosteum of the tibiae, ulnae, or os frontis, becoming thickened and tender to pressure, together with the history of the case.
Volatile Alkali antidote for excessive doses of balsamic autumnale when perforation has been produced.

Hyoscyanine he has used with the greatest and with invariable success, while Rhenatamine has assumed the lubrificant form.

He knew a practitioner who was celebrated in the circle of his practice for his success of his treatment, he used 1 dram Emeretic 2 gr dissolved in 8 oz water taking a half tablespoon every 3 or 4 hours for 4 or 5 days. After the 3rd dose vomiting is produced, but does not follow the subsequent doses.
Eberle, Dr. Otto, states that he has employed mercury in the cure of this disease. He states that when petrification was produced the pain invariably subsided, and that by keeping the patient under the mercurial influence for two weeks he always derived permanent relief, and he states that he has never had cause to repent his practice.

When acute rhematism attacks the muscles of respiration causing the patient to cry out and upon moving, upon coughing, when the muscles are disturbed, percussion relieves the state of things in a few minutes in many cases instantly.
Causes. Frequently the result of the acute form of the disease; continued exposure to a damp and cold atmosphere; improper exposure, while under the influence of mercury; atmospheric vicissitudes.

Treatment. Though not generally indicated, bleeding is proper as a preliminary measure, in robust and plethoric subjects.

Sudorifics are useless.

Diaphoretics are beneficial. G. guaiacum much recommended; best adapted to cases occurring in subjects of a relaxed or phlegmatic habit of body, and in old people. In young, vigorous, and plethoric subjects, it rarely does good, and sometimes harm.

Antimony, a useful article in this disease. I have derived much advantage from its use, in conjunction with infusion of the root of burdock, (arctium lappa). A grain of tart. antim. dissolved in a pint of strong infusion of this root, should be taken daily.

Mercury, much recommended for its powers in this disease; particularly useful, when the disease arises from cold, while the system is under the influence of mercury—the usual diaphoretic decoctions advantageously used along with it. I have derived much advantage from mercury, conjointly with the following decoction: R. Rad. sarsaparil. $\frac{3}{10}$j. Fol. chymaphyl. $\frac{1}{2}$jss. Rad. mezer. $\frac{3}{10}$j. Cort. ulm. fulv. $\frac{1}{2}$j. Aq. bullient. $\frac{1}{2}$j. To be boiled down to three half-pints. Dose, a wine-glass-full, four times daily. Dr. Otto, of this city, states that he has seldom been disappointed in curing the disease by salivation, continued for three or four weeks. Calomel and opium.

Stramonium, an efficacious remedy in this
form of the disease. Scudamore speaks highly of extract of stramonium and lactucarium, in combination—a quarter grain of the former, with two grains of the latter, may be given every four hours.

*Colchicum,* no less useful in this, than in acute rheumatism.

*Spirits of turpentine,* much and deservedly recommended, particularly when it is seated in the hips or loins. (Home.) Dose, from twenty to forty drops, thrice daily.

*Phytolacca decandra.* The tincture of the berries has been used with advantage. *Zanthoxylum fraxineum.*

*Solanum dulcamara,* in recent cases from suppressed perspiration.

*Hyoscyamus.* The extract a valuable palliative, in painful and inveterate cases.

*Compression by the tourniquet—acupuncture—electricity—galvanism,* have all been employed, with decided benefit. Exercise of the whole body, to a degree sufficient to excite perspiration, has performed remarkable cures.

**Rubifacients.**

**GOUT.**

Gout is divided into the *acute,* the *chronic,* and the *retrocedent* varieties.

**Symptoms.** Of the acute form. Violent inflammation of the ball of the great toe of one foot, attended with excruciating pain, redness of the skin, distention of the neighbouring veins, and, at the end of about forty-eight hours, oedema. The attack generally occurs between twelve and three o’clock at night. There are slight remissions in the morning, and violent
exacerbations at night. The paroxysm seldom terminates before the sixth, or continues beyond the tenth day. The oedema continues some days after the inflammation has subsided. After the disease has disappeared in one foot, it sometimes makes an immediate attack on the other. The disease is generally preceded by a train of premonitory symptoms, most commonly indicative of gastric disorder.

Though in its first attacks confined exclusively to the feet, gout seizes upon many other parts, during the same paroxysm, after the system has become enfeebled by frequent recurrences of the disease. Pulse, in severe attacks, full, hard, and strong; in slight cases, the constitutional symptoms not prominent; the digestive functions always considerably disturbed; bowels torpid; urine scanty, and of a deep red colour, depositing a pink or lateritious sediment. The inflamed parts are exquisitely sensible to the slightest touch.

**Sequelæ.** Frequently, structural derangement of the liver; permanent debility of the stomach. Thickening and shortening of the ligaments, and distention and induration of the bursæ mucosæ, are the most common local consequences of gouty inflammation. Gouty concretions not very frequent.

**Predisposition.** The predisposition to gout sometimes hereditary, though not so frequently as is generally supposed. It is most commonly acquired, by the operation of the following, and perhaps other causes—viz. the depressing passions; severe and protracted study; the habitual use of high-seasoned animal food and vinous liquors, with an indolent or inactive course of life.

Gout rarely occurs before the 20th year of
age—most apt to commence its attacks between the 30th and 40th years.

Exciting causes. Excessive intemperance; redundancy of bile; an accumulation of acid in the stomach; cold and humidity; external injuries; fatigue, and mental anxiety; violent passions.

Proximate cause. Some writers regard the proximate cause of gout to consist in an excess of the elements of uric acid, (Brandt, Home,) and others, in an excess of phosphoric acid, (Bertholet.) Scudamore's objections to these doctrines, stated and assented to. Debility and disorder of the digestive organs, has been regarded as the proximate cause of gout: objections stated to this doctrine. According to Broussais, the proximate cause of the disease consists in a peculiar irritation of the mucous membrane of the alimentary canal. I think it not improbable that derangement of the assimilative functions, with general plethora, in conjunction with such a peculiar irritation in the alimentary canal, constitutes the fundamental pathological condition of gout.

Treatment. To obviate the recurrence of the disease, we must remove, as much as possible, the predisposing and exciting causes, and restore the healthy action of the digestive organs. A simple and digestible diet must be enjoined, and the use of wine and condiments interdicted. The occasional use of mild aperients, and some of the bitter tonics, is proper.

The treatment during the paroxysm. Bleeding, though highly recommended by some, is not in general a remedy of much importance in the paroxysm of gout, except when it is
suddenly translated to the brain. Copious bleeding favours metastases. *Emetics* proper only when the stomach is surcharged with indigestible aliment.

*Cathartics* and *diuretics* are decidedly beneficial, in the treatment of gout. Two or three evacuations should be procured daily. Calomel, with rhubarb, an excellent purgative in this disease. Scudamore recommends the following cathartic: R. *Extract. colocynth. compos.* ʒss. Calomel, gr. xv. *Tart. antim.* gr. i. *M. Divide into 16 pills.* Dose, two or three in the evening. *Diuretics* and *purgatives*, exhibited conjointly, particularly useful. Thus: R. *Magnes. calc. gr. xx.* Sulphat. magnes. ʒjss. *Vini. colchici. ʒjss.* Aq. *fontan. q. s.* To be taken at once, and repeated every four or five hours. (Scudamore.) I have found this mode of exhibiting diuretics and purgatives in union, highly beneficial.

*Colchicum*—the ancient *hermodactylus*, a remedy of great powers in this disease. It seldom fails to cure the local symptoms speedily; but, according to some writers, it leaves the disposition to the disease much stronger, and leads more rapidly to the chronic form. I think it probable, that these evil consequences are the result of the improper or inordinate use of this article, and that under judicious management, it is as safe as it is valuable. The latest and best authorities on this subject, recommend it to be given in conjunction with magnesia.

*Eau medicinale*, a celebrated French *noustrum*. The tincture of *white hellebore* and *laudanum*, &c.

*Opium* is a valuable palliative in cases attended with extreme pain. It should be freely
administered; one grain every hour or two, until the pain remits; it renders the pulse softer and less frequent, causes a gentle diaphoresis, and tranquillizes the nervous system. Its modus operandi explained.

Local remedies. Leeches increase rather than diminish the pain; blisters not useful, except to recall the disease to the extremities, when it has passed on to more important parts by metastasis; warmth, by the application of flannel or cotton, an old and popular practice, though attended with no advantages. Cold applications will often speedily relieve the pain, but are apt to produce dangerous metastasis. Evaporating lotions, of a stimulating character, are frequently beneficial.

Treatment proper during convalescence. After slight attacks, and before the constitution has suffered much, little or nothing need be done during convalescence. But in violent and protracted cases—particularly after repeated attacks have impaired the constitution, medical treatment during convalescence is of the greatest consequence. In cases of this kind, it is necessary to restore the energies of the digestive organs, as well as of the liver, skin, and kidneys. For this purpose, small doses of blue pill, with the occasional use of rhubarb and magnesia, and a weak infusion of colomba, &c., in general answer very well. Gentle exercise also must be enjoined. The application of a flannel roller to the affected parts, highly useful, when permanent swelling and debility remain.

Chronic gout. A strong gouty diathesis, without sufficient constitutional vigour to produce high inflammatory affection of the joints. It is characterized by prominent and harassing
symptoms of dyspepsia; irritability of temper, and despondency and irresoluteness of mind; palpitations, with a sense of tightness at the pit of the stomach; cramps in the extremities, particularly at night; dull pain in some of the joints, attended with a sense of numbness and weight in the affected part; sleep unsound, and interrupted by sudden startings; permanent oedema left in the affected parts; tenderness and aching of the ankles, rendering progression difficult and painful; skin sallow, dry, and contracted; bowels costive, and in very bad cases, much general debility, wasting of the flesh of the lower extremities, a dry and short cough, &c.

TREATMENT. The principal indications in the treatment of this form of gout are; to strengthen the system in general, and the stomach in particular. For this purpose, a mild and digestible diet, with gentle exercise, cold bathing, mild aperients, and the occasional use of the mercurial alterative pill, are our most useful remediate measures. To relieve the distressing nervous irritation, opium, lactucarium, stramonium, or hyoscyamus, are to be occasionally used. I have found a combination of opium, camphor, and nitre, an excellent anodyne in such cases. Tonics seldom serviceable.

Retrocedent gout. The disease is called retrocedent, when the inflammatory affection of the joints suddenly and entirely ceases, at the same time that some internal part becomes affected. The part to which it is most apt to be transferred, is the stomach; sometimes it falls upon the lungs, at others the brain, and occasionally the heart becomes its seat. When transferred to the stomach, intense pain, anx-
iety, nausea, and vomiting, occur; when to the lungs, asthmatic symptoms supervene; when the heart becomes affected, pain in the cardiac region, with violent palpitation and syncope, ensue; metastasis to the brain, produces insensibility, coma, apoplexy, or palsy. Any of these translations of the disease, are exceedingly dangerous.

Metastases to internal organs most commonly produced by the application of cold to the inflamed joint; any thing which rapidly debilitates the system, as bleeding, violent purging, sudden fright, &c., may cause metastasis.

Treatment. When the disease attacks the stomach, warm brandy, or laudanum joined with aromatics, must be freely administered, and a sinapism laid over the epigastrium. Opiates, antispasmodics, and sinapisms or blisters to the chest, when the lungs are affected. Metastasis to the brain, to be treated by prompt and copious bleeding, cold applications to the head, sinapisms to the feet, and stimulating purgative enemata.

The gouty diathesis predisposes to: apoplexy, asthma, hydrothorax, ascitis, erysipelas.

CHAPTER XV.

EXANTHEMATA.

SMALL-POX.

Small-pox is divided into two varieties, the confluent and distinct. The distinctive character of the former is: pustules confluent, depressed,
be has predicted that the disease was forming from the pain in the back of loins, which are particularly violent in the forming stage. The suppurative fever is more dangerous than the eruption fever, particularly in the confluent variety. The suppurative fever is also called the secondary
flaccid, irregularly circumscribed; the intervening spaces being pale, and the fever continuing after the eruption is completed. The distinctive character of the latter is: pustules distinct, elevated, distended, circular; the intervening spaces being red, and the fever ceasing, when the eruption is completed.

Description of the distinct kind. At first, aching pain in the back and lower extremities, lassitude and loss of appetite, slight chills, nausea and vomiting, with some soreness in the fauces, and finally, fever. Towards the end of the third day of the fever, the eruption makes its appearance, first on the face and neck, and successively on the inferior parts.

Just before the eruption appears, adults generally perspire freely; and sometimes become comatose. Children frequently suffer convulsions at this period; the fever ceases by the fifth day. At first, the eruption consists of small red spots, rising, by degrees, into pimples, then becoming vesicular on the top, with a small pit in the centre, and finally, about the eighth day, becoming pustular, and of a spheroidal shape. About this period, the face and eye-lids swell; the tumefaction subsiding again about the eleventh day. The pustules are at their full and perfect state on the twelfth day; from this date, they begin to shrink and dry, the matter forming crusts of a brown colour; in a few days more, these crusts fall off, leaving the skin underneath of a brownish red colour.

The pustules are surrounded by an areola, of a damask-rose colour. When the pustules are numerous, some degree of fever occurs on the tenth or eleventh day. In these cases, there is usually some soreness of the throat,
hoarseness, and a copious discharge of a thin fluid from the mouth. The eruptive fever is of the synochus, and not unfrequently of the synocha grade.

The confluent variety. In this variety, all the above-mentioned symptoms of the early stage are severer. The accompanying fever, at first synocha, then typhoid; pain in the loins, in the forming stage, very severe; the severer this pain, the more certainly will the disease assume the confluent character. (Richter.)

Seldom any profuse perspiration just before the appearance of the eruption, as in the distinct kind; instead of this, diarrhœa often occurs at this period. Great soreness and redness of the fauces, and generally a copious flow of saliva. The pustules appear earlier than in the distinct kind—seldom later than the beginning of the third day—very rarely as late as the fourth or fifth day. The pustules not surrounded by an inflamed margin, where they are separated—the intervening skin remaining pale and flaccid; the face is always much swollen—the swelling coming on earlier than in the distinct variety, and declining about the tenth day. The matter in the pustules is never thick and yellow, as in the distinct variety; but of a whitish brown, and sometimes dark colour.

About the eleventh day, the pustules break, and pour out a fluid which hardens into brown or black crusts. When these fall off, the skin underneath desquamates, producing small and permanent depressions, or pits, in the skin. The fever does not cease, but remits on the appearance of the eruption, increasing again about the sixth day, and continuing throughout the whole course of the disease.
The regular course of small-pox includes therefore four distinct stages, viz: 1st. The **eruptive fever**, including a period of from two to four days: 2d. The **period of eruption**, of about two days continuance: 3d. The **period of maturation**, or **filling**, which occupies about three days: 4th. The **period of exsiccation**, or drying of the pustules, which terminates about the fifteenth day from the commencement of the disease.

**Crystalline small-pox.** In this variety, the fluid in the pustules is colourless, having no purulent appearance. The pustules, though not confluent, are never surrounded by a florid areola; the swelling of the face is often suddenly transferred to the hands and feet; fever, typhoid; pustules, pale or lead-coloured.

Small pox often remarkably modified by the influence of the contagion of measles. These two diseases cannot go on at one and the same time, in the same system. Hunter's doctrine of the incompatibility of two kinds of morbid action, referred to. Its applicability to the explanation of the *modus operandi* of medicines, in the cure of diseases. Remarks on the power of this, and other forms of exanthematous diseases, of destroying the susceptibility of the system to a second infection.

**Autopsic phenomena.** In violent cases, pustules in the larynx, trachea, and bronchia; inflammation of the mucous membrane of the alimentary canal, is invariably found.

**Prognosis.** The more the disease retains the distinct form, the safer. The confluent form, always dangerous; and the danger is greater, according as the fever assumes more of a typhous character,
Observations on the origin of small-pox. The opinion maintained, that the disease often originates spontaneously, without the immediate agency of contagion.

TREATMENT. The heating plan of treatment, pursued formerly, did much injury. An antiphlogistic treatment is all-important; by moderating the eruptive fever, the eruption is rendered more scanty; and the whole disease, consequently, more mild. Moderate bleeding should be practised, when the febrile excitement is violent; copious bleeding being very rarely demanded. Milder cathartics, highly useful through the whole course of the eruptive fever. Violent purgings improper, in the distinct variety of the disease,—not so in the more malignant and confluent kind, where they will often do much good. (Mead, Friend, Cleghorn, Huxham.)

The supervention of a spontaneous diarrhoea, in the early stage of confluent small-pox, is almost always followed by a less numerous crop of pustules, and by an abatement of the febrile excitement, and of the swelling of the face and hands.

*Calomel* is the best purgative in small-pox; many maintain, that it possesses a peculiar power of moderating the violence of the disease.

*Emetics*, sometimes useful in the beginning of the disease, particularly in the confluent variety.

*Diaphoretics*, of the refrigerant class, are beneficial, as nitre, antimonials, saline draught, spir. mindereri.

*Cool air*. The free admission of cool air into the apartments of small-pox patients, together with the use of *cooling acidulated drinks*, light and *cool coverings*, is one of the most
Opium is the best remedy to check the epileptic convulsions, which occur in this disease, just before the eruption takes place.

To recall the Eruption when it has receded Opium Camphor, Dipi Cuprum & the internal Stimulant.
important improvements in medicine that has ever been made. The patient should be laid on a mattress, and the temperature of his apartment so regulated, as to communicate to him rather a sensation of coolness than warmth.

When the eruption of the confluent variety of the disease is attended by fever of a typhous grade—which is sometimes, though rarely, the case, the diet, instead of being cooling and diluent, must be stimulating and nourishing. Wine, here, is a very useful remedy; the carbonate of ammonia also answers well. When delirium attends a weak grade of reaction in this disease, camphor is the best stimulant. Cinchona, a valuable remedy during the suppurative stage of confluent small-pox, with typhoid fever. Opium, in combination with camphor, very beneficial, when the pustules are slow in filling up, or the fluid in them remains watery. Warm fomentations to the feet, and leeches or blisters to the scalp, useful, when the brain becomes much affected. Diarrhæa, in the secondary fever of confluent small-pox, is unfavourable, and must be checked by prepared chalk, suspended in some astringent vegetable infusion. Opium and camphor, an effectual means of checking obstinate vomiting—an occurrence always dangerous in small-pox. Epileptic convulsions, just before the eruption, not particularly dangerous in distinct small-pox—more dangerous in the confluent variety.

The use of lunar caustic, as a local application to the pustules, has of late been recommended and successfully practised, in France, for the purpose of lessening the number of pustules, and by so doing, rendering the disease milder and less dangerous.
SMALL-POX.

Cauterization of the pustules, on the first or second day, will destroy them.

In 1825, M. Velpeau read a memoir before the Royal Academy of Medicine, of Paris, tending to prove, that, if the pustules of small-pox are cauterized, during the first two days, with lunar caustic, the progress of the pustules will be arrested. This practice was fully tested some time after, by Dr. Meyreux. According to his report, it appears, that if the variolous pustules are opened with a lancet, and touched with a pointed piece of lunar caustic, on the first or second day of their appearance, they will be wholly destroyed, and leave no marks; but on the third day, it will be quite useless.

VARIOLA VACCINA.

Origin of the disease. The vaccine matter, originally obtained from a pustular disease affecting the udders of cows—hence its name. The grease of horses, and cow-pox, were, at first, thought the same disease; and this opinion is strongly supported by the experiments of Mr. Ring, Friese, Loy, and Sacco; they having produced genuine cow-pox, both in the vaccine and human systems, by the matter of grease. Dr. Jenner could not communicate the vaccine disease to a person who had previously been affected with the disease produced by the grease. Matter taken from a peculiar pustular disease, which occurs about the head and nose of sheep, will, according to Richter, Sacco, and others, produce a pustular affection in the human subject, similar to cow-pox, and capable, it is said, of destroying the susceptibility to the subsequent influence of the variolous contagion.

Description. The vaccine disease can only be communicated by inoculation, or by bringing the virus in immediate contact with a part
It is stated by Mr. Huskisson, a gentleman from 1802, that he could not succeed in producing a permanent till the year 1812 and that after this period he could not succeed in any subsequent year in producing another till the year 1824.

From this it would appear that the influence of vaccine matter upon the system is lost every 10 or 12 years and that vaccination is again necessary after the lapse of this period of time.

Eberle
On or about the 10th day of the vaccine disease constitutional symptoms occur, the glands in the axilla become swollen, painful, pain in the limbs, headache, slight chill alternating with flushes of heat; but these symptoms do not invariably take place they are modified by the dyspepsy of the constitution of the patient. He has known the pustule to fully develop itself with the exception of the surrounding axilla, the matter from these pustules will as effectually communicate the disease as matter from pustules which have been attended by axilla.

The vaccine pustule modifies the violence of whooping cough, he has frequently vaccinated with the view to this effect.

If the skin is abraded while the system is under the influence of the vaccine matter, a pustule will be apt to occur at that spot.
denuded of the cuticle. The matter being inserted under the cuticle, the pustule commences and proceeds in the following manner:—
on the second day a small point; on the third day more distinct; on the fourth day slightly elevated like a small pimple, and surrounded with a narrow and faint areola; on the fifth day more elevated, vesicular, circular, its surface flattened with a small dark depression in its centre, containing a colourless fluid; on the ninth day the pustule is in its full state of perfection, the areola being large and of a beautiful damask-rose colour; at this period, slight constitutional symptoms generally occur. The areolar efflorescence not essential to the protecting power of the disease. On the eleventh or twelfth day the centre of the pustule becomes darker, which gradually extends to the circumference, so that a brown scab is formed by the fourteenth day. The scab becomes darker until it acquires a dark mahogany colour, and in five or six days more falls off. There is seldom more than one pustule; instances of several, and even numerous pustules, have, however, occurred.

The vaccine disease often subdues other affections; crusta lactea, scrofulous swellings, ophthalmia, whooping-cough, have yielded permanently to the influence of this disease. Herpetic and other cutaneous affections, may occasion such a deviation in the vaccine pustule, from its genuine character and course, as to render it ineffectual as a preventive of smallpox. Diseases of the skin, from which a fluid exudes, capable of conversion into a scab, are particularly apt to disturb the specific character of the vaccine disease.
Measles and cow-pox may go on simultaneously in the same person.

**Diagnosis, between the spurious and genuine disease.** In the spurious, the point of inoculation is already considerably inflamed and elevated on the second day; on the fourth or fifth day, an irregularly defined efflorescence appears, and scabbing is completed as early as the seventh or eighth day; the pustule is irregular or angulated in its circumference, and without a depression in its centre.

The spurious disease may be produced by, 1. The existence of some cutaneous affection in the vaccinated patient; 2. Matter taken from a spurious pustule; and, 3. Matter that has suffered some change by long keeping.

The matter should be taken from the pustule for vaccination, between the seventh and ninth day. The *scab* is generally used for vaccination.

**Appearance of the genuine scab.** Smooth, dark-brown, rather brittle than tenacious, and of regular circumference.

In taking either matter or the scab for vaccination, it is of the utmost importance to be well assured that the person from whom it is taken is healthy; and particularly that he was not affected with any other cutaneous disease, during the progress of the vaccine affection.

**General remediate treatment,** very rarely necessary. Local applications, such as cold water, a weak solution of sugar of lead, emollient poultices, to moderate the local inflammation, are sometimes required.

The prophylactic power of the vaccine disease discussed.
Some regard this disease as one sui generis; others, and with correctness, I think, consider it as small-pox, modified, by the system having previously undergone the vaccine or some other modifying influence. Varioloid, or modified small-pox, is no new disease,—having been observed and described for centuries past, under the different names of chicken-pox, horn-pox, swine-pox, &c. Proofs adduced of the variolous origin of this disease. The most conclusive of which is, that matter taken from a varioloid pustule, has produced genuine small-pox.

Description. This disease varies exceedingly in its appearances, course, and degrees of violence. The eruptive fever is generally very mild, and of irregular continuance, varying from two to five days; a roseolous rash often precedes the eruption. (Thomson.) At first, small papulæ appear, some of which soon dry off, the others change to vesicles containing a thin limpid fluid, as early as the first or second day; generally about the third or fourth day, these vesicles burst or decay; frequently, small areola surround the vesicles. This is the mildest form of the disease, and is scarcely distinguishable from chicken-pox. Sometimes the eruptive fever is violent; the eruption having more the character of pustules with slight central depressions, remaining five or six days before they begin to dry off. Occasionally the scabs do not fall off until the ninth, tenth, or twelfth day.

The following circumstances constitute the prominent and characteristic features of the disease:—
1. The eruption appears in successive clusters, and at uncertain periods after the beginning of the fever.

2. The vesicles seldom if ever enter into complete suppuration.

3. There is no secondary fever.

4. The drying off or scabbing occurs generally between the fifth and seventh day; the scabs falling off as early as the eighth or ninth day.

5. They leave no pits, but red disks or elevations.

It is pretty certain, from recent observations, that the variolous contagion does occasionally operate on the system, and produce varioloid disease, even after the most perfect vaccination. This, however, is not often the case; and the frequency of this disease (varioloid) must be, in a great measure, ascribed to the previous vaccination having been rendered imperfect, by one or more of the following circumstances:

1. Preoccupation of the skin by herpes or some other cutaneous disease.
2. Vaccination with spurious matter.
3. Depriving the vaccine pustule incautiously of its contents.
4. Injury done to the vesicle in its early stage.

In relation to the character of the cicatrix, Dr. Gregory makes the following observations. "It would be improper to overlook the remarkable connexion that subsists between the degree of perfection in the vaccine cicatrix, and the violence of the secondary disease, (varioloid.) When the scar on the arm is perfect, that is, distinct, circular, radiated, and cellulated—but above all, when it is small, so that it may be covered with a split pea, the secondary affection (varioloid,) will be slight, and hardly deserve the name of a disease. On the other hand, whenever the scar is large, and bears
the marks of having been formed by high local inflammation, and wants the other distinctive characters just mentioned, the chance of having secondary small-pox in after-life, will be greater, and, ceteris paribus, there will be a stronger likelihood of its proving severe."

**VARICELLA—CHICKEN-POX.**

*Description.* Little or no eruptive fever; the eruption consisting of transparent pea-sized vesicles, coming out in successive crops, bursting at the top about the third day, and concreting into thin brown crusts by the fifth day—leaving no scar when they fall off.

Medical treatment rarely necessary.

Are small-pox and chicken-pox produced by the same virus, as has been, and is still, by many, supposed?

**RUBEOLA—MEASLES.**

*Description.* The disease frequently commences with the symptoms of common catarrh—namely, lassitude, slight chills, sneezing, watery and slightly red eyes, cough, and some degree of hoarseness. More commonly, however, the catarrhal symptoms do not supervene until the fever is fully developed. The fever is often mild; sometimes it is violent from the commencement. The skin is hot and dry, the tongue white and punctuated with prominent red points. About the fourth day of the fever, the eruption appears, first on the face, extending gradually down over the whole body. *Nausea* and *vomiting*, and sometimes slight delirium, and even coma in violent cases, occur shortly before the appearance of the eruption. On the sixth day, the eruption begins to fade on the face, but not on the
rest of the body; on the seventh day, it begins to become paler on the other parts, except on the backs of the hands, where it remains vivid until the eighth day. About the ninth day, the eruption presents a faint yellowish appearance, and desquamation begins on the face, which, in two days more, is completed over the whole body. Occasionally, the eruption comes out as early as the second day, and sometimes, though very rarely, as late as the seventh day. The eruption is not uniform, but forms irregular patches, approaching the semicircular or crescent shape. (Willan.)

Commonly, the face swells considerably during the height of the eruption. The fever does not abate on the appearance of the eruption, but, on the contrary, increases. The catarrhal symptoms, also, increase in violence. Diarrhoea often comes on about the time the eruption declines, which, when not excessive, is favourable. The fever almost always declines pari passu with the desquamation; in some instances, however, though rarely, it continues and even becomes more alarming after this period. There is a very strong tendency to pectoral inflammation in this disease. Pneumonia and croup, most apt to occur about the time the eruption begins to decline. Ear-ache, inflammation and swelling of the eyelids; swelling of the glands about the neck; herpes, porriginous pustules, tumid lip, serous discharges from behind the ears, and tedious suppurations, are among the sequellae of the disease. These consequences are generally the result of improper management—particularly of incautious exposure to cold and damp air, and sometimes of constitutional predisposition. In children of an ir-
It had been denied by some that it is possible to communicate this disease (measles) by inoculation; but Dr. R. [sic] states that he has frequently communicated it in this manner and that he has never failed to produce the desired result from inoculation.

Dr. Eberle had never seen a case of measles attended by convulsions, but that there was internal venous congestion indicated by pale countenance, cold extremities, feeble pulse, disposition to coma, and bleeding not so serviceable in this congestion as in that of other diseases. Stimulants are of the greatest service in these cases.

The convulsions also have a tendency to produce reaction in consequence of the contraction of the muscular fibre accelerating the circulation. When early in the eruptive stage a diarhoea occurs under the rash, pulse or if the rash disappears in consequence, stimulants should be given to bring out the rash. Opium and Camphor, the Opium will check the diarrhoea.
The Campher will act as a Stimulant.

A Common Cause of the Disappear-
ance of the rash is the Exposure of the
Patient to Cold.

The warm bath, strongly impregnated
with common Salt is of the greatest Ser-
vice in Pulmonary Inflammation
particularly of Children.

In this disease the Exposure of the Pat-
ient to even to a Cool Temperature should
be guarded against, particularly when
the Rash is about to appear, and during
Convalessence. Inflammation of the lungs
and the internal Confusion are apt to result from such Exposure.
ritable habit of body, and disordered bow­
els, the breathing sometimes becomes much
oppressed and anxious, although no pectoral
inflammation exist. (Armstrong.) The op­
pressed respiration, here, depends on irrita­
tion, and must not be confounded with the
oppressed respiration from pulmonic inflam­
mation;—for, in the former, bleeding would
injure, in the latter, it would be indispensa­
bale.

Diagnosis. Dyspnœa from irritation is vari­
able, intermitting, being sometimes very great,
at others quite easy. Is increased on assum­
ing the erect position; the respiratory mo­
tions of the chest being very perceptible.
When produced by inflammation, the op­
pressed breathing is permanent—is relieved
by the erect position, the muscles of the abdo­
men being strongly moved in the acts of res­
piration. (Armstrong.) Bronchitis is distin­
guished by the difficulty of respiration being
attended with a pale and anxious countenance,
livid lips, unequal distribution of animal tem­
perature, and rattling noise in the chest.

TREATMENT. Very little remediate treatment
required in mild and regular cases. Gentle
aperients, and tepid diluent drinks, are in ge­
eral sufficient. When the eruptive fever is
very moderate, the mildly stimulating dia­
phoretic ptisans are serviceable—such as in­
fusion of sage, marjoram, balm, &c. Bleed­
ing rarely necessary, in cases unattended by
local inflammation. When the general febrile
excitement is violent, moderate bleeding will
prove beneficial; and in cases attended with
pulmonic, or other internal inflammations,
blooding, both local and general, must be
promptly and freely employed, together with
taken for ulcers. The ulcers generally cast off superficial sloughs, as the fever declines, and then heal; sometimes they become foul, and discharge a thin and acrid fluid, which being swallowed, occasions exhausting diarrhea. Deep and fatal coma sometimes occurs in the stage of excitement. Abdominal inflammation occasionally supervenes. Ana­sarca, a frequent consequence of S. Anginosa.

**Scarlatina Maligna**, commences like the former varieties. Eruption, at first, pale, assuming afterwards a dark or livid red colour; very variable in its duration, and time of appearance. Heat of the skin variable, and seldom great. Pulse, at first, active, soon becoming small and feeble. Delirium, an early symptom. Eyes dull and heavy, and cheeks livid. Greyish ulcers soon visible on the tonsils—becoming finally covered with dark sloughs. Fauces clogged with viscid phlegm, impeding respiration. A thin acrid fluid discharged from the nostrils, in the advanced period of violent cases. S. Maligna, differs from S. Anginosa, principally in the sudden and dangerous collapse, which occurs in the former. The supervention of the collapse, announced by diminution of the heat of the surface, great prostration, frequent and feeble pulse, dark-brown or black tongue; petechiae, and hæmorrhage, occur towards the conclusion of fatal cases—seldom before the tenth or twelfth day. Dr. Armstrong’s division of S. Maligna, into three varieties, viz. the inflammatory, the congestive, and the mixed.

**TREATMENT.** Emetics, of great benefit in the forming stage, particularly of the anginose and malignant varieties. Gentle purgatives,
The Anadarea. Which follows scarlatina is of the inflammatory character, excited by the urine coagulated on the application of heat.

Eberle has seen several cases of scarlatina followed by anadarea, which always yielded to Digitalis. This diuretic (Digitalis) appears to be peculiarly adapted to this form of Anadarea.

In the inflammatory malignant of Arm, the ulceration & sloughing of the tendons, in extensive or death sometimes occur, from this cause.

In the contagious variety the sloughing of the foresae is not of much importance.
In the amnionose form of febrifugia, an acute (Antimonial) in the early and forming stage of the disease, i.e., of the greatest benefit, to overcome the congestion which is always more or less present. When the reaction takes place and the skin becomes hot (the heat is excessive) and dry, cold applications or sponging with cold water are of the greatest importance and benefit. Together with the cold applications, we should exhibit laxatives, two or three evacuations should be had daily.

Large doses of Quinine have been employed with the greatest advantage in the stage of collapse.

Edsle has remarked that Quinine has a tendency to perspiration, he has observed that when this article is given with a view to cure agues, the skin becomes soft after its administration. Belladonna is said to be a prophylactic against every variety of febrifugia.
and the warm bath strongly impregnated with salt, are also decidedly beneficial in this stage. During the stage of excitement of the mild variety of the disease, purgatives, tepid affusions, cooling drinks, ventilation, a light diet, with rest, are in general all that is required. The daily employment of mild laxatives, and the careful avoidance of exposure to cold and damp air, is the best mode of preventing the dropsical swellings, so apt to occur during convalescence. In the stage of excitement of S. Anginosa, cold affusions are highly useful. Cold affusions and purgatives most beneficial, when used concomitantly, particularly during the first three days of the stage of excitement. (Armstrong.)

After the third day, the affusions should be tepid, unless the general excitement and heat of the skin still remain very considerable. The skin must be above the natural temperature, and dry, to justify the use of cold affusions. When visceral inflammation exists, with an active pulse, bleeding will be proper;—when, however, general debility accompanies the local inflammation, our dependence must be placed on the internal exhibition of opium with calomel, and the application of emollient cataplasms over the region of the inflamed organ. Blisters useful, in such cases, during the first few days of the stage of excitement—in the stage of collapse, they do harm; rubifacients may be employed advantageously. To cleanse the ulcers in the fauces, and expel the viscid matter lodged there, emetics are often decidedly useful; gargles, acidulated with nitric or sulphuric acid, are beneficial. Moderate portions of wine, and the milder tonics, useful during the stages of collapse and convalescence.
SCARLATINA.

In the inflammatory variety of S. Maligna, blood-letting is an important remedy. The benefits of bleeding confined to the first twenty-four or thirty hours of the stage of excitement; the blood should be suffered to flow, until a decided impression is made on the system. Purgatives particularly serviceable, during the stage of excitement, in this variety; and calomel is the best article for this purpose. Tepid affusions, to be used during the use of purgatives.

The highly inflammatory form of Scarlatina Maligna, when treated by prompt bleeding and purging, in the early period of the stage of excitement, seldom sinks into a low collapse; and when this stage supervenes, after the employment of proper depletion, in the commencement, it is rarely necessary to resort to active tonics or stimulants.

When the disease assumes the congestive character—that is, when, instead of manifest febrile excitement, the face remains pale, the skin cool, the sensorial functions blunted, with great anxiety and praecordial oppression, the warm saline bath, followed by stimulating frictions, and the application of bottles or bladders filled with hot water, together with the free use of warm diaphoretic písans, such as infusions of catnip, balm, or eupatorium perfoliatum, and large doses of calomel, (fifteen or twenty grains) are the remedies to be particularly relied on. Dr. Armstrong advises bleeding, which, though a hazardous remedy, may, with cautious management, do much good. Calomel, in large doses, particularly efficacious. Having established a general febrile reaction, by the means just mentioned, recourse should be had to the milder stimulating remedies, such as infusion of serpentaria, wine whey, and, as the disease advan-
ces, and the signs of prostration become more prominent, carbonate of ammonia, wine, camphor and opium. Capsicum, an excellent medicine in the stage of collapse, both as a gargle, and as an internal remedy.

Two table-spoonfuls of red pepper, and two teaspoonfuls of culinary salt, are to be beat into a paste, on which half a pint of boiling water is to be poured, and strained off when cold. An equal quantity of very sharp vinegar being added to this infusion, a table-spooneful of the mixture, every hour, is a proper dose for an adult. Mr. Stephens asserts, that he gave it in four hundred cases, many of which it cured, after they had assumed the most alarming state. I have, in a few instances, employed this remedy with signal advantage. (Stewart.)

Cinchona, formerly much employed in this disease; it is inferior, however, to the carbonate of ammonia and opium, capsicum, serpentina, and camphor.

ERYSIPelas.

General description. Fever, varying in different cases, from the highly inflammatory to the low typhous grades. Superficial inflammation sometimes preceded, at others followed by the fever—commencing in an irregularly circumscribed blotch, and soon extending itself over a greater or less extent of surface; no pulsation or tension felt in the inflamed part, the pain being of the burning and pungent kind; tumefaction, often considerable. Small vesicles, or blisters, containing a limpid fluid, appear after the inflammation has continued for some time. When resolution is about taking place, the inflamed and red surface becomes pale or brownish-yellow; soon after which, the cuticle desquamates. No regularity, either in the duration of the inflammation, or its time of appearance.
Erysipelas occurs under several modifications, each manifesting prominent peculiarities, both in relation to the local and general phenomena, viz.

1. *Erysipelas phlegmonodes*. Fever, of the *synergcha grade*; erysipelatous inflammation, generally occurring in the face—sometimes on the extremities. Colour, *bright red*; swelling, about the second day of the fever; and vesicles, about the fourth day; about the sixth day, the swelling and fever begin to subside, and desquamation of the cuticle takes place by the eighth day. Very rarely terminates in suppuration. In old people, sometimes protracted to the twelfth or fourteenth day. Differs principally from the other varieties, in the high grade of febrile excitement which attends it.

2. *Erysipelas œdematodes*. Colour of the inflamed skin, *pale red*, or *yellowish-brown*; heat and burning pain, inconsiderable; swelling comes on gradually, has a shining surface, and *pits, on strong pressure*. Vesicles are very numerous and small—burst, on the second or third day, and change to dark coloured scabs. When the head is affected, the swelling is so great, as to close the eyes, and render the whole face exceedingly bloated. *Vomiting* is an early symptom, and *delirium* and *coma* often supervene, as the disease advances. The debilitated, and habitually intemperate, most subject to this variety of the disease. Dangerous, when the head is its seat—rarely so, when the extremities alone are affected, except when it terminates in suppuration.

3. *Erysipelas gangrenosum*. Usually occurs in the face and neck; attending fever of a typhous
grade; slow delirium and coma, almost invariably attend throughout its whole course; inflamed skin of a dark red or livid colour; blisters small but not numerous, often terminating in gangrenous ulcers. Suppuration and gangrene of the cellular substance very common. Always tedious and dangerous.

4. Erysipelas eraticum. Inflamed blotches appearing in succession on various parts of the body—the first blotches generally disappearing before the last make their appearance.

5. Erysipelas neonatorum—a variety of the disease peculiar to infants soon after birth. It almost always commences about the genitals or umbilicus, and thence spreads over a greater or less extent of the body. The affected parts swell considerably, become hard, are of a dark red colour, and very painful to pressure. Generally connected with green and fetid discharges from the bowels, and colic pains; it continues from seven to fourteen, or even twenty-one days. Apt to terminate in gangrene and tedious suppurations.

Suppuration, in erysipelatous inflammation, always commences in the cellular membrane; the pus formed is thin and acrid, and never collected in circumscribed cavities.

Erysipelatous inflammation, sometimes extends to the internal viscerae—not by metastasis, as some have alleged, but by a spreading of the inflammation from the external to the internal parts. The organ most commonly thus affected is the brain—an occurrence generally fatal.

There is a variety of erysipelas, attended with prominent symptoms of disorder of the biliary system, and fever of the synochus grade. This is the erysipelas phlegmonodes biliosum,
which has been lately so well described by Mr. Copeland Hutchinson. The fever in this variety of the disease, resembles the ordinary bilious remitting fever. The whole surface, in some cases, acquires an icteric hue. The pain and irritation are great.

**Causes.** A natural predisposition to this disease appears to exist in some instances. Habitual intemperance in persons of a cachectic disposition, predisposes to erysipelas. In persons either naturally or accidentally predisposed to the disease, it may be produced by local injuries, particularly of the scalp. Violent rage has been known to produce it. (Richter.) A peculiar constitution of the atmosphere, and hence its occasional epidemic appearance. Intestinal irritation; this I believe to be a very frequent cause of erysipelas; it is unquestionably so in infants. The contaminated air of crowded and ill-ventilated apartments; hence its frequency in ill-ventilated and crowded hospitals. Derangement of the biliary organs. Some observations on the inflammation produced by the *rhus toxicodendron*.

**Treatment.** The general treatment must accord with the character of the attending fever. It must be strictly antiphlogistic, when the fever is of the synocha grade; though frequent or copious bleeding is rarely necessary, unless coma or violent delirium exists. Causthetics are among the most useful general remedies in this disease. Purging is especially beneficial when the face is affected. The saline cathartics the best in the phlegmonoid variety; calomel to be preferred when symptoms of biliary disorder attend. Two or three aloine evacuations should be procured every twenty-four hours. Emetics highly beneficial
in the beginning of the disease—more especially in the bilious modification. Diaphoretics are serviceable. The saline mixture, with a small portion of tart. antimon. a good diaphoretic. I have derived much benefit from small doses of ipecac. and calomel in combination. When the fever is of a typhoid grade, mercurial laxatives, in conjunction with stimulants or tonics, are to be chiefly relied on; the carbonate of ammonia, and sulphate of quinine, exceedingly valuable in such cases. Opium with sulphate of quinine, particularly valuable after symptoms of gangrene have made their appearance in the gangrenose variety. In the early period, however, of this variety, free purging with calomel, will render the necessity of stimulants and tonics less urgent in the latter stages.

After suppuration has taken place, opium, camphor, and quinine, are to be employed in doses corresponding to the degree of prostration.

In every variety of this disease, laxatives are of primary importance. From considerable experience in the treatment of this malady, I am satisfied that alternate doses of calomel, with the daily employment of saline purgatives, will do more towards the reduction of the disease, than, perhaps, any other plan of general treatment that can be adopted. The calomel may be advantageously combined with small portions of ipecacuanha. One grain of the former, and three of the latter, may be given every four hours.

Local treatment. Certain external applications generally decidedly beneficial, the assertion of Bateman and others to the contrary notwithstanding. Cold applications, such as solutions of sugar of lead, cold water, or emollients, generally do harm. The applications must be of a stimulating character. A solution of corrosive sublimate in water, in the
proportion of four grains to an ounce of water, is an excellent application. The blue mercurial ointment is also a very good local remedy; I have frequently employed it with much advantage.* I have also used a weak solution of sulphate of copper, with prompt success. A solution of lunar caustic, in the proportion of four grains to one ounce of water, will sometimes do much good. I have used it in two instances with manifest advantage.

Blisters are often highly useful. They must be laid immediately over the inflamed surface. Lard, used by Brodie with benefit.

CHAPTER XVI.

Hæmorrhagiae.

Hæmorrhages are divided into active and passive. In the former, there is a preternatural determination of blood to the part from which the hæmorrhage occurs, with an increase of local vascular action, heat, and colour. In the latter, there is no sanguineous congestion, nor increased activity of the capillaries from which the blood flows. Bichat contends that, whether of the active or passive kind, spontaneous hæmorrhages are always mere sanguineous exhalations, and never the consequence of rupture of a vessel. This opinion is not sustained by general observation.

* Both these remedies were first recommended by American physicians; the former, by Dr. Schott of this city, and the latter, by Dr. Dean of Chambersburg.
Hæmorrhages occur much more commonly from the mucous membranes, than from the other structures of the body. Local congestion, in the part from which the blood flows, is almost invariably present. This congestion may be the result of an irritation existing in the part, or of one seated elsewhere.

*A natural predisposition* to hæmorrhage exists in some individuals—and this is even hereditary in some instances. Remarkable instances of this kind are on record. The predisposition to the *different* kinds of hæmorrhage, varies with the age of individuals. Thus, the hæmorrhages of young people, occur generally from parts situated above the diaphragm; whilst in persons of advanced age, they are most apt to take place from parts situated below this dividing muscle. During childhood, bleeding from the *nose* is most common; between the age of puberty and thirty years, from the *lungs*; in middle life, from the *rectum*; and in very old people, from the kidneys and bowels.

**Prognosis.** Passive hæmorrhages more dangerous than active ones. The cause of this explained. When they depend on organic disease, they are more intractable. The prognosis depends, in a great degree, on the organ from which the hæmorrhage proceeds; a hæmorrhage from the lungs being, *ceteris paribus*, more dangerous than one from the stomach.

*The general indications* in the treatment of hæmorrhages are, 1. To diminish the momentum of the blood in the general circulation, when it is preternaturally augmented; 2. To
lessen the determination of blood to, and moderate the local vascular action in, the part from which the haemorrhage occurs. The diet should be simple and unirritating.

EPISTAXIS.

Premonitory symptoms of the active variety. Weight and tension in the temples; throbbing pain in the head; strong pulsation of the temporal arteries; ringing in the ears; vertigo; flushed countenance; tickling in the nose. In weak and irritable subjects, there are, in addition to these symptoms, others denoting a nervous or spasmodic condition, viz. creeping chills; a copious flow of pale urine; disposition to syncope; cold extremities, &c. The blood seldom flows from both nostrils at the same time.

Exciting causes. Whatever is capable of causing a preternatural determination of blood to the head, may produce this haemorrhage.

Prognosis. Frequent bleeding from the nose during childhood, is often connected with a natural predisposition to haemoptysis and phthisis in after-life. When epistaxis occurs frequently in advanced age, we may presume the existence of visceral obstruction, or predisposition to apoplexy. It may be regarded as salutary in the stage of excitement, in all forms of fever; in the stage of collapse it is a fatal sign. Epistaxis most dangerous in debilitated and irritable subjects. Seldom, though sometimes, fatal, from the mere loss of blood.

TREATMENT. When this haemorrhage occurs in consequence of the suppression of some habitual sanguineous evacuation, it must not
be arrested unless it become excessive. When it is attended with a *strong pulse*, and with manifist symptoms of cephalic congestion, bleeding from the arm, and warm pediluvium, cold applications to the head, cooling drinks, the internal use of large doses of nitre, laxative enemata, and rest with the head in an elevated position, are the measures to be principally relied on.

*Styptics* are improper under the circumstances just mentioned—they are often required, however, in cases attended with feeble arterial action, from exhaustion or habitual debility. The most useful styptics are, alum, kino, spirits of turpentine, and sugar of lead. In obstinate cases, a *blister* to the back of the neck, will often succeed after other applications have failed. The internal use of *sugar of lead*, is an excellent remedy in every variety of spontaneous *hæmorrhage*. *Mechanical compression*, by means of dossils of lint introduced into the nostrils, rarely fails to arrest the bleeding.

**Hæmatemesis.**

*Premonitory symptoms.* These are almost always prominent. The principal are; weight and pressure in the stomach, want of appetite, or voraciousness, acid eructations, pain in the hypochondria, nausea, anxiety, ringing in the ears, disposition to syncope, small, contracted, and irritated pulse, alternate flushes of heat and chills, palpitation, cold extremities, pale and contracted countenance, and finally, increasing anxiety, and constriction about the breast, and obtuseness of the senses. The quantity of blood thrown up is generally considerable, and almost always very dark—
Haematemesis.

sometimes in clots, occasionally, quite fluid. Relief is felt after the blood is thrown up. The darker the blood, the longer it must have lain in the stomach, and the slower must have been the effusion. A portion of the blood always passes into the bowels, and is afterwards evacuated by stool.

Causes. Impeded circulation of the blood in the abdominal viscera, from visceral indurations; hence its frequency in habitual drunkards. Suppressed menstruation; particularly in females soon after the age of puberty. Suppressed hæmorrhoidal discharge; habitual constipation; pregnancy; mechanical injuries or erosion of the mucous membrane of the stomach.

Prognosis. Not attended with great danger when it occurs in consequence of suppression of the menses, or hæmorrhhois; by recurring frequently, however, it leads to dropsy, inveterate dyspepsia, hysteria, hypochondriasis, &c. It is apt to become habitual. It is more dangerous when it arises from visceral indurations.

Treatment. Bleeding, when the pulse is tense and cored. Revulsives, (i. e.) sinapisms to the epigastrium, or dry cupping; warm pediluvium; purgative enemata. Internal stypitics, viz. sugar of lead, muriated tincture of iron; spirits of turpentine; alum-whey; muriate of soda; cold water; decoction of nettles, (urtica dioica.) Of these, I have found the spirits of turpentine the most effectual. From ten to fifteen drops are to be used every half hour. Internal remedies are, however, rarely particularly beneficial, in cases depending on organic visceral disease. In cachectic females, the muriated tincture of iron is an
Spirits Lampetina may be given to drachms every 1/2 hour.

The recurrence of the disease may sometimes be prevented by stimulating the liver by a course of \textit{Sulphur Mercurial} doses.

The employment of \textit{Emetica} in this disease (recently claimed by a teacher of medicine in this city as originating with himself) originated with Dr. \textit{Purdon}. (Idea) that digitalis would be an excellent remedy for relieving them internal hemorrhages.
excellent internal remedy for habitual hæmatemesis. *Emetics* lately recommended by Dr. Sheridan. *Purgatives* strongly recommended by Hamilton, particularly when the disease occurs in females between the ages of eighteen and thirty, and is unattended by visceral disorganization. I have used them with advantage.

**Hæmaturia.**

The hæmorrhage may proceed from the urethra, the bladder, the ureters, or the kidneys. When from the urethra, the blood is *unmixed* with urine, and flows without any evacuant effort. When from the bladder, there is dull pain or a sense of uneasiness in the region of this viscus, accompanied with painful erections, and burning pain in the glans penis—the blood not being intimately mixed with the urine, but suspended in small flakes or coagula in it. When the blood comes from the kidneys, it is very intimately mixed with the urine, without flakes or small coagula, and settling down into a uniform mush-like substance at the bottom of the vessel in which the urine is left standing.

Old people, particularly those who are affected with hæmorrhhois, are most subject to this hæmorrhage. Corpulent and plethoric females are apt to void bloody urine, about the period when the menses cease to recur.

*Causes.* Mechanical irritation from calculi or other causes; acrid substances conveyed to the bladder, either through the medium of the circulation, or by injection; organic affections of the urinary passages; suppression of menses or hæmorrhhois; gonorrhrea; *dentition.* (Richter.)
HÆMATURIA.

Prognosis. Seldom attended with immediate danger. When habitual, it is apt, in old people, to terminate in dropsy.

Treatment. Bleeding when the pulse is active, assisted with purgative enemata. When occasioned by calculi, opium, with sugar of lead, and the warm bath, are generally beneficial. When acrid or stimulating substances conveyed into the bladder through the circulation or otherwise, are its cause, the free use of mucilaginous drinks, with opium, will prove most beneficial. The muriated tincture of iron, is an excellent internal astringent in cases not immediately the consequence of irritation from calculi, or other irritating substances. Twelve drops may be given three or four times daily. In habitual hæmaturia, a caustic issue on the upper and inner part of the thigh, or near the groin, on the abdomen, has been known to do much good. Uva ursi, decoction of peach leaves, and other astringents, rarely beneficial. Sinapisms to the sacrum often prove decidedly beneficial.

HÆMORRHOIS—Piles.

A discharge of blood, without tenesmus, from small varicose tumours on the verge of, or within, the anus. When these tumours do not discharge blood, they are called blind piles, (hæmorrhoides cæcæ.) They are called external or internal, according as they are situated within or without the anus.

Premonitory symptoms. Before the blood begins to flow, the patient usually experiences various affections: viz. head-ache, vertigo, stupor, drowsiness, difficulty of breathing, nausea, colic pains, pain in the loins, a sense
While using the Molina Rotundifolia it is mucilaginous & slightly tonic. It is the common opinion that Blisters are improper in the treatment of Nephritis, and would employ them in this disease though he has not yet had occasion to use them.

Selloporthea

The combination of Alum 6 pce. Spirit 1/2 or 2 pce. taken 3 times daily has done more good in curing [in his hands] Leukorrhea than any other remedy.

He also employs this Mixture in Nephriticus.
He has used Sace: Saturni in the treatment of Hæmoptysis in one case for 5 or 6 days, and Calice Pictcum was the consequence, it yielded however to Opium Camphor.

It had been doubted whether Sace: Saturni was capable of producing Calice Pictorum, but he has not the least doubt of its power in this respect. He would recommend a portion of Oil: Olivar to be taken after the Sace: Saturni. He thinks it countersacts this poisonous disposition of the article. Nitros: Potass when given for a length of time or in insidious doses disturbs the Stomach.
of fulness and heat, itching and pain about the anus, and often slight fever (molimina hæmorrhoidalia.)

The blood sometimes flows, only when fæces are evacuated—sometimes it flows without the discharge of fæces. The loss of blood is often very great. I have known it so great as to prove fatal. It not unfrequently induces great debility, terminating in a leucophaegmatic condition, or dropsy. A sudden cessation of habitual hæmorrhoidal flux, is apt to be followed by other and more dangerous affections, as apoplexy, palsy, asthma, &c.

Causes. These are sometimes entirely local in their character and operation, viz: pregnancy, parturition, irritating purgatives and enemata, protracted constipation, ascarides, sedentary employments, compression of the abdomen, by tight clothing, &c. There exists in some individuals a natural predisposition to hæmorrhhois. In such persons, every thing that has a tendency to produce congestion in the portal circulation, will readily give rise to the disease, particularly between the thirtieth and fiftieth years of age. Females, who menstruate regularly, are less subject to it than males. It rarely occurs in children.

Treatment. May we safely attempt to remove, or suppress this disease? When it depends on local causes, and has not yet become habitual, the sooner we remove it the better. In cases, however, that depend on constitutional predisposition, and that have become habitual, from long continuance, or frequent repetition, or where the general health, or some other chronic affection, has been improved by its supervention, it is necessary
to proceed with caution in the application of remedies. In many instances, the hæmor-
roidal discharge obviates other and much more dangerous maladies, by removing or
diminishing congestion in the abdominal vis-
cera—a source of much more disease, than
seems to be commonly supposed. The prin-
cipal indications are: to counteract inflam-
mation, and local plethora in the parts; to
obviate the occasional causes of the disease,
and to moderate the discharge, when exces-
sive, by local applications. To answer these
intentions, mild aperients, rest in a horizontal
posture, simple and unirritating diet, cooling
drinks, cold and mildly astringent applica-
tions, will in general suffice. When the in-
flammation runs high, general blood-letting,
with emollient and anodyne applications, are
beneficial.

Hæmoptysis.

Hæmoptysis is generally preceded by slight chills,
cold extremities, constriction in the breast, pal-
pitation, alternate flushing and paleness, an irri-
tated, contracted, and frequent pulse, dryness
of the fauces, a salty or sweetish taste, a sensa-
tion of warmth rising in the breast, attended
with a saltish taste, slight cough, and finally,
hæmorrhage. Sometimes, however, it comes on
suddenly. The quantity of blood brought up, is
generally small, and mixed with the natural
mucus of the bronchia; occasionally, the bleed-
ing is rapid and copious.

Predisposition. Some individuals have a natu-
ral predisposition to this variety of hæmor-
rhage. Such persons have narrow and de-
pressed breasts, high shoulders, long and
slender necks, fair hair, blue eyes, delicate and fair skin, sound and very white teeth, red cheeks, a clear but feeble voice—they are irritable and passionate, and subject to glandular swellings about the neck, and catarrhal affections, which pass off slowly. They are most liable to this haemorrhage, between the ages of fifteen and twenty-five.

Exciting causes. Atmospheric vicissitudes; violent bodily exertions; the abuse of spirituous liquors; suppression of habitual discharges; repulsion of chronic cutaneous eruptions; drying up of old ulcers or issues; metastasis of gout; mechanical irritation of the respiratory passages, by particles of matter floating in the air, or gaseous substances; intestinal irritation; organic diseases of the heart; pregnancy, &c.

Prognosis. Rarely fatal merely from loss of blood—generally the first decided step towards consumption, particularly in such as are naturally predisposed to it. When no predisposition to phthisis is present, haemoptisis will frequently pass off, without terminating in the former malady.

Treatment. Blood-letting is indispensable, when the pulse is tense and hard. It is necessary to draw blood, until the pulse becomes soft. A large sinapism should be immediately applied to the breast. Astringents, given internally, will sometimes put a prompt stop to the haemorrhage, particularly after venesection. Sugar of lead is the best article of this kind; when the pulse is weak, it may be advantageously combined with opium. From one to two grains of the lead may be given every twenty minutes, until the bleeding is checked. In violent cases, six or eight grains
should be given at once. Large doses of \textit{nitras potassæ}, are an excellent remedy in pulmonary \textit{hæmorrhage}; it may be given in combination with tart. antimony. Common salt, is a familiar and useful remedy in \textit{hæmoptisis}. In \textit{chronic spitting of blood}, digita-lis, with a milk or farinaceous diet, the occasional loss of small portions of blood, blisters to the breast, and the careful avoidance of every thing that can cause inordinate excitement, are the principal remediate measures to be depended on. Wearing flannel next the skin, and avoiding the influence of sudden changes of weather, are circumstances of much importance, in the chronic form of the disease. Nothing, perhaps, is equal to a uniformly warm climate.

\textbf{PHTHISIS PULMONALIS.}

Consumptive symptoms may arise from various and distinct pathological conditions. They may depend on; 1. Chronic bronchitis; 2. Ulceration of the larynx, or trachea; 3. Chronic pleuritis; 4. Inflammation and suppuration of the substance of the lungs: and, 5. Tuberculous matter in the pulmonary tissue, constituting genuine \textit{phthisis pulmonalis}.

The first variety is generally the result of catarrh, and usually called \textit{catarrhal phthisis}. This, of all the varieties of consumption, is the most \textit{sanable}, particularly so long as the inflammation of the mucous membrane does not extend to the subjacent parts, or has not terminated in ulceration. The \textit{diagnostic symptoms, in the early stage}, are: Countenance pale; lips bluish; hands and feet often cold, and the temperature of the surface vari-
able; cough deep, and expectoration free from the beginning; slight soreness in pharynx; much oppression, but little or no pain in the chest; cough rarely excited by full inspiration. Cough always severest in the morning, attended with wheezing respiration, until the mucus, collected during the night, is expectorated. In all these circumstances, it differs from _tuberculous phthisis_. In the _advanced_ stage, it cannot be distinguished from the latter, or genuine form of the disease.

Catarrhal consumption often goes on to a fatal termination, without any breach of continuity or ulceration whatever—the pus expectorated being a mere secretion from the inflamed bronchial surface. When this variety of consumption is connected with prominent derangement of the liver and stomach, it forms what has been denominated _dyspeptic phthisis_. In this combination, we have, in addition to the ordinary symptoms of phthisis, dyspeptic symptoms,—such as, furred tongue, foul breath, unnatural stools, capricious appetite, distended epigastrium.

The _majority_ of consumptions, in this and similar climates, are of the catarrhal or bronchial kind.

When ulceration of the larynx or trachea is its cause, the disease is called _laryngeal, or tracheal phthisis_. This is a rapid and fatal disease, the instances of recovery being exceedingly few. One of the first, most constant, and characteristic symptoms, is _a change of voice_—losing at first its clear sound—then becoming hoarse or indistinct, and finally, scarcely audible. When the larynx is principally affected, we have the following characteristic phenomena: pain in the larynx, in-
creased by coughing and pressure; cough most violent in the morning, on rising out of bed; suddenly and violently excited, by inhaling cold air, and irritating vapours, by swallowing food, and by the use of irritating gargles, and acid drinks. When the trachea alone is affected, the pain is always increased by bending the head backwards, or turning it round, and is generally felt about its bifurcation. The cough is not excited by gargles, or the inhalation of cold air and vapours, but readily by active bodily exercise, and by swallowing—the cough not coming on, until the food has descended as low down as the sternum, when it is often brought up again. Inspiration, during coughing, is generally stridulous, as in croup. The fits of coughing are frequently preceded by sneezing. In coughing, the patient puts his hand to the throat, near the breast. The expectoration generally consists of small portions of yellow pus, suspended or mixed with a large portion of bronchial mucus. The most frequent causes of this variety of phthisis, are catarrh, whooping-cough, croup, and syphilis.

Chronic pleuritis, gives rise to the third variety of phthisis. It is the result of effusion into the cavity of the chest—a termination which always takes place, sooner or later, in chronic inflammation of the pleura. As the effusion increases, the lung on the side in which it occurs, becomes more and more compressed, until it is reduced to so small a bulk, as to seem almost completely destroyed. Sometimes, ulceration takes place in the pulmonary pleura, in which case, the effused purulent, or sero-purulent fluid, is discharged by coughing. When this occurs, hectic, with its usual
The Bronchial or Catarhal variety of Consumption is by far the most frequent occurrence in this climate. Chronic Bronchitis simulating consumption may arise from exposure to cold after measles.

Bronchial consumption is the one which is cured, by the inhalation of tar vapour, he has a case now under this treatment, the disease was brought on by a Common Colds, the patient has been using the tar vapour (by putting a hot iron into a vessel containing tar & then inhaling the vapour) for 6 to 6 months & is rapidly recovering.

Laryngeal or Tracheal Phthisis is according to his observations most frequently the result of Syphilis.

In confirmed tubercular phthisis a Combination of Maine & Hypo-Muriatic Comp' with Creta has been used with advantage. From the beneficial use of this remedy in chronic ulceration, he would suppose that it would be a very appropriate medicine.

A Change of Climate is one of the best means to cure incipient phthisis. When Suppuration has commenced little benefit can result from this change.
Linnæe asserts that an abscess may occur in the lungs and become encysted, that the cyst may form a fistulous opening and be secretion by the inner surface of the cyst and be discharged for even the space of 20 years, without the patient experiencing any other inconvenience.

Tubercles, when they exist in the lungs and they may exist in persons, are all appearances in a perfectly healthy state. May upon the superintervention of a common cold from exposure, take on the inflammatory process; the tubercles become rapidly developed, and all the symptoms of confirmed tubercular consumption occur in the short space of a few weeks. A local disease in the liver, intestines, or bladder may give rise to phthisis in a patient who has already a tuberculous taint.
train of symptoms, ensue. This variety of phthisis is characterized by: increased oppression in the breast, on lying down; anhilation, by ascending stairs, or other bodily exercise; alleviation, in a sitting posture; generally, some soreness of the integuments of the affected side; pain in the side, confined to a certain space; difficulty of breathing, progressively increased; and, finally, the absence of pus in the expectoration, and irregularity in the hectic symptoms.

This variety of phthisis is of a very fatal character; though instances of recovery do sometimes occur, by: 1. A gradual absorption of the effused fluid, the lungs forming adhesions with the costal pleura; 2. The escape of the fluid, by the formation of a fistulous passage from the cavity of the chest into the bronchial tubes; 3. By the formation of an opening through the intercostal spaces, and the escape of the fluid externally.

Inflammation, terminating in pulmonary abscess, constitutes the fourth variety. This variety is of very rare occurrence.

Tubercular phthisis. This variety occurs only in persons of a strumous or scrofulous diathesis. Tubercles never formed, without a natural predisposition to them. They are scarcely organized, being probably formed by exudations into the cellular tissue of the lungs. They do not always lead to consumption—remaining dormant sometimes, without materially affecting the general health. Their formation sometimes very rapid; in which case, the usual phenomena of inflammation generally attend. Tubercles are never absorbed; hence the utter incurableness of perfectly formed tuberculous phthisis. The con-
version of tuberculous substance into a fluid, not the result of suppuration, but of a peculiar process of softening. (Lænnec.) The surface of the cavities of softened tubercles, is lined with a white, opaque, and soft membrane. Pus is afterwards secreted by this membrane. (Bayle.) Under this membrane, another one is formed, as the disease advances, of a white, semi-cartilaginous appearance, which eventually forms a complete lining to the ulcerous excavations, and gives them a fistulous character. This latter membrane exists sometimes before the softening has taken place—constituting the encysted tubercle of Bayle. There is often more or less chronic bronchitis, co-existing with pulmonary tubercles, and hence puriform expectoration may occur, before these tumours have undergone the softening process. (Pearson.) There are two, and sometimes three, morbid processes, in every case of tubercular phthisis; 1. Tubercular action; 2. Chronic bronchitis; 3. Inflammation of the pulmonic tissue, generally chronic.

Although art cannot cure tubercular phthisis, in a state of full development, spontaneous cures have been known to take place, after the tuberculous matter has been evacuated. (Lænnec.) This occurs in two ways: 1. By the cavity becoming lined with a semi-cartilaginous substance, forming "a kind of internal cicatrix, analogous to a fistula;" 2. By the cavity being obliterated by cellular, fibrous, or cartilaginous substance.

Exciting causes. All fixed irritations in the abdominal viscera; repelled cutaneous eruptions; suppression of habitual evacuations; atmospheric vicissitudes; intemperance in spi-
rituous drinks; sedentary employments; the
incautious use of mercury; hemorrhages;
depressing passions; the inhalation of irritat­
ing substances; rapid growth; syphilis; onan­
ism. Of all these causes, suppression of the
cutaneous exhalation by cold, is the most com-
mon and powerful, in calling into action this
fatal malady in those who are predisposed
to it.

Characteristic symptoms of the commencement
and course of phthisis. Tension and slight
aching in the breast; slight, short and dry
cough; slightly oppressed perspiration—a
sense of tightness being felt in some parti-
cular part of the chest, on inspiration. At
length, moderate febrile symptoms in the
evening; the pulse and respiration being
preternaturally frequent; coughing in the
morning; great susceptibility of taking cold;
torpor of the bowels; frequently, a benumb-
ed and drowsy feeling; tongue moist, cover-
ed with a thin white fur. As the disease ad-
vances, the cough becomes more and more
troublesome; there is great sensibility to low
temperature; a pearly whiteness of the eyes;
skin often hot; lips, tongue, and fauces, often
dry; slight chills in the evening, followed by
febrile exacerbations, with a burning heat in
the palms of the hands and soles of the feet;
expectoration at first scanty and frothy, final-
ly thick, puruloid, and often streaked with
blood, becoming more purulent as the disease
goes on; the pain in the chest, and evening
fevers, become stronger and stronger; the
patient lies easy only on one side; profuse
sweats occur during the night; the burning
in the palms of the hands and soles of the
feet, is distressing; the pulse very frequent,
tense, and quick; and small during the febrile exacerbations, but slower and languid in the morning. The cheeks have a circumscribed flush, during the febrile excitement. Besides the evening exacerbation, there is, in most instances, but a slight one about twelve o'clock in the day. Towards the conclusion, colliquative diarrhea comes on, the voice becomes hoarse, the fauces aphthous, the feet òdematous; there is sometimes slight delirium; more commonly, however, the mental faculties remain entire to the last moment.

Tests for pus. Muriate of ammonia coagulates pus—but not mucus. Pus does not coagulate by heat—mucus does. Water, added to the solutions of pus in sulphuric acid, and a solution of pure potash separately, produces in each a copious precipitate.

Dr. Young's test.—A small portion of pus, put between two glasses, will, when held near the eye, and looked through at a distant candle, exhibit an iridescent spectrum, of which the candle is the centre;—mucus does not exhibit this phenomenon.

Treatment. One of the most important remedial measures, in every variety of the disease, is, to restore and maintain the regular action of the cutaneous exhalents. This is to be done by wearing flannel next the skin, by minute doses of tartarized antimony, and by avoiding atmospheric vicissitudes. We must also endeavour to remove every source of irritation, and to prevent as much as possible, an inflammatory condition of the system—particularly in the incipient stage. With this view, a strictly antiphlogistic regimen is to be enjoined, together with occasional small bleedings.
He has never known a patient affected with a permanent disease of the skin to be affected with phthisis pulmonalis; the two affections are supposed to be some to be incompatible. When Chronic affections of the skin, ulcers we are cured, the consequence will be the development of phthisis; if the patient has a hereditary taint, or disposition to the disease, we should therefore be extremely cautious how we repel Chronic eruptions, or dry up older drains or ulcers, without inquiring into the habit of the patient, the hereditary diseases of the family, &c.

When death takes place from this disease, the patient mostly sinks down as if into a calm & sound sleep to die, without pain. Sometimes but very rarely convulsions occur just before death.

A person affected with phthisis should wear flannel next the skin, should be frequently changed, not slept in.

If a salt in water, or a common drink, if kept up, theantarctic inhalation in cases of incipient phthisis, the disease may be arrested for a year by this remedy in persons of a sensitive diathesis.
Broussais states that he has cured
Branchial Consumption by the ap-
plication of large enemata filled with
the Breed for six months.

Elshade cured a Case of Tuberculosis last summer which was considered a hopeless, by inserting two diathermics, one at the upper end, the other at the lower extremity of the Sternum, & by the employment of the tar vapour.

Balsam Copaiva Emulsion peculiarly useful in Chronic Branchial Inflamations. Evidently Munich.

The tar for inhalation should be worked with hot water before it is used. the inhalation of the vapour may be continued for seven

Oeffem is not only an excellent restorative remedy in phthisic, but it may be employed in the earliest stages of the disease to

Check the excessive secretion of the mucus from the branchial

jeunesse, it is the best remedy that can be

employed for the purpose. It is not so friendly, yet it is a

Tourel, of Pariset, used in cough, & in consumption

in the Parisian Hospitals. An Admirable Remedy.
where the pulse demands it, the use of *digita-
*lis*, and mild aperients, with gentle exercise on
horseback or in a carriage. Another import-
ant measure, is to divert as much as practica-
ble, the undue determination of blood to the
pulmonary system, by means of *blisters, cup-
ing*, and especially, by *tartar emetic ointment*
applied to the breast.

Although we cannot expect to *cure* tubercular
phthisis by these or any other remediate measures,
when once fully developed, yet, by a strict adherence
to them in the *incipient stage*, we may often *sus-
pend* the disease permanently, or *retard* its pro-
gress in the more advanced periods. *Catarrhal* con-
sumption is not so irresistible in its course, and will
not unfrequently yield to remediate treatment, even
when considerably advanced.

The use of mercury discussed—generally
injurious in tubercular phthisis. In consump-
tion from *chronic bronchitis*, *balsam copaiva*
is a very excellent remedy. “It appears to
have a specific influence over the mucous
membrane of the trachea and its branches.”
*(Armstrong.*) I have myself employed it
with decided advantage in this variety of
phthisis. *The inhalation of the fumes of tar*,
has of late years been much extolled in the
cure of consumption. Its power has been
overrated. In tubercular phthisis it general-
lly does harm; in *chronic bronchitis* it may,
and no doubt has often done good—but even
in this variety of the disease, it generally
proves injurious, when the habit of the body
is irritable, and the inflammation active. *Dr.
Hastings* speaks very favourably of a combi-
nation of extract of *stramonium*, and *pulv.
pecac. compos.*, in the proportion of one-fourth
of a grain of the former, with two grains of
the latter, taken three times daily. *Cinchona*
is valuable in the advanced stage of catarrhal
consumption. (Broussais, Hastings.) A change of climate will sometimes remove the disease, when remediate treatment is inadequate.

Tracheal phthisis almost invariably terminates fatally. Mercury is said to have been beneficial, particularly in cases dependent on a syphilitic taint. An equable and mild temperature is one of the most important curative means in this, as in the other varieties of phthisis. Blisters should be applied to the throat, and kept discharging. Armstrong asserts, that bals. copaiv. is as beneficial in this, as in the catarrhal variety, when employed previous to the occurrence of ulceration. When ulceration exists, large doses of cicut a, with minute portions of muri a s hydr a r g., are said to be serviceable.

Phthisis depending on chronic pleuritis, is more amenable to remediate treatment. Here, our chief reliance is to be placed on external vesicating or irritating applications to the chest. Tartar emetic ointment is the best. Active diuretics are beneficial. Squill, in combination with calomel, is a good article for this purpose. Digitalis and squill, useful when effusion has taken place.

Prussic acid, is much extolled by some in phthisis. It is, however, a dangerous remedy, and must be employed with the utmost caution; one-sixteenth of a drop is sufficient for a dose. Sugar of lead, an excellent remedy to check the colliquative night sweats. Philandrium aquaticum, much recommended by the German physicians in catarrhal (phthisis pituitosa) consumption. It is given in doses of from sixteen to twenty grains, three times daily. I have known it to do much good in the
advanced stage of the disease. *Amnelopsis he-
dera, appears to be a useful remedy in this va-
riety of the disease. (Atkins.) The bark
of the wild cherry tree (prunus virginiana,)
is a valuable tonic in consumption.† Opium,
the best euthanasial remedy.

CHAPTER XVII.

NEUROSES.

APoplexy.

Character. Abolition or suspension of the ani-
mal functions,—the organic functions being
uninterrupted; with laborious, generally ster-
terous, breathing.

Description. Generally preceded by premoni-
tory symptoms—such as, vertigo, drowsiness,
dull pain in the head, irregular and involun-
tary contractions of the muscles of the face,
turgidity of the vessels of the head, bleeding
from the nose, ringing in the ears, loss of
memory or speech, dimness of sight, indis-
tinct articulation. Sometimes the attack is
sudden, without premonitory symptoms. Ster-
terous breathing, not invariably present in the
attack, as is generally alleged. The pulse,
during the apoplectic state, is at first full,
slow, regular, and often hard; towards the
conclusion of fatal cases, it becomes frequent,
irregular, and weak. The face is livid and

full; the eyes prominent, and often bloodshot; the pupils much dilated, or permanently contracted. The attack may last from a few hours, to several days. Apoplexy, seldom if ever destroys life suddenly, as is the case with affections of the heart. Most apt to occur between the ages of forty and sixty. Persons who have short thick necks, and are of a full and plethoric habit, and indulge freely in eating, drinking, and sleep, are most liable to this disease. Great heat and cold predispose to it.

**Exciting causes.** Whatever tends to determine the circulation inordinately to the head, may produce apoplexy. The most common of these causes are, over-distention of the stomach with food; the use of indigestible and stimulating diet; the intemperate use of spirituous liquors; violent straining in lifting, or in evacuating faeces; violent anger; the direct rays of a vertical sun; extreme cold weather; the cold stage of intermittents; stooping, or other positions in which the head is in a depending state; impeding the return of blood from the head, by wearing cravats too tight, and turning the head to look back. Apoplexy is also produced by the suppression of habitual discharges; by the healing of old ulcers; by metastasis of gout. Irritation in the stomach and bowels, is a frequent cause of this disease.

**Proximate cause.** Interruption of the functions of the brain, and consequent deficiency of nervous influence in the parts furnished with cerebral nerves. Does this interruption of the cerebral functions depend on compression of the brain, or on mere deficiency of arterial blood circulating in this organ, as has
been lately maintained? I believe that both conditions, (i. e.) compression of the brain and deficiency of arterial blood in it, are necessary to the production of genuine apoplexy. Cerebral compression may be the result of mere vascular turgescence, or of extravasation of blood upon, or into, the substance of the brain; or, finally, of serous effusion into its cavities, &c. Blood is very rarely extravasated upon the surface of the brain, or into its ventricles, but almost always into its substance. (Bricheteau, Rochaux.)

**Diagnosis.** Distinguishable from *syncope* and *asphyxia*, by the pulse and respiration. The pulse is full, strong, and slow, in apoplexy; in syncope and asphyxia, it is small and feeble, and sometimes wholly suspended. Respiration, in apoplexy, is slow, laborious, and sterterous; in asphyxia and syncope, it is feeble and almost imperceptible. Apoplexy, not easily distinguished from intoxication; the smell of the breath, habits of the patient, &c. will inform us on this point.

**Prognosis.** Generally unfavourable. When the result of mere sanguineous congestion in the brain, it is in general readily relieved. When effusion of serum, or extravasation of blood, has occurred, it is rarely cured. Extravasation of blood into the brain, is not necessarily fatal, as was formerly thought.

The observations of Bricheteau, Seres, Rochaux, and Riobé, prove, that when blood is extravasated into the substance of the brain, a cyst is formed round the coagulum, and that this coagulum is afterwards absorbed by the vessels of this cyst. The cyst finally becomes absorbed itself, and leaves a yellowish cicatrix or laminated tissue, which is sometimes found to contain a small portion of serum.

**Apoplexy may be divided into two varieties:**
vis. *simple* apoplexy, which is *not* accompanied by paralysis; complicated apoplexy, which *is* attended by loss of motion, on one or the other side of the body. Mr. Seres, of Paris, has ascertained that *simple* apoplexy depends on *serous effusion* into the ventricles or circumvolutions of the cerebrum, without any organic lesion of the cerebral substance. In *complicated* apoplexy, the *substance* of the brain is altered; excavations are found in it, filled with blood of various appearances, according to the time which may have elapsed between the extravasation and death—the portions of brain, immediately surrounding these clots, being red, indurated, or yellow. Mr. Seres concludes, from his observations on this subject, that:

1. When no symptoms of paralysis attend, we may presume that the seat of the disease is in the meninges, and that the substance of the brain is not altered. This variety, he accordingly calls *meningeal* apoplexy.

2. When the disease is complicated with paralysis, the *cerebrum* is the part principally or wholly affected; and this variety, he calls *cerebral* apoplexy. It appears, from the observations that have been made in the Parisian hospitals, that *meningeal* apoplexy occurs most commonly before the fifteenth, and after the sixtieth year of age.

*Cerebral* apoplexy generally makes its attack suddenly. *Meningeal* apoplexy usually comes on gradually. In this variety, the mouth is never drawn to one side, and the patient lies in a straight position. Paralysis almost invariably occurs on the side opposite to the one in which the cerebral lesion exists. This was observed in 171 subjects, who had died.
of cerebral apoplexy, accompanied with hemiplegia. When the paralysis is universal, the extravasation and cerebral lesion occur in the substance of the tubar anulare, or along the base of the skull. Death, from apoplexy, explained.

TREATMENT. The chief indications in the treatment of apoplexy, are: to lessen the determination of blood to the brain, and to moderate the momentum of the general circulation. This is effected by general and local bleeding, active purgatives, revulsive applications, abstemiousness in diet and stimulating drinks, &c. During the apoplectic attack, prompt and copious bleeding, stimulating purgative enemata, cold applications to the head, sinapisms to the feet, cups applied to the temples and the back of the neck, and an elevated position of the head, are the remedial measures to be relied on. When apoplexy comes on, soon after a full meal, an emetic should be administered; blood should, however, be previously drawn. Under other circumstances, emetics are improper, as they have a decided tendency to produce cephalic congestion. On this subject, there has been much controversy. I have found castor oil, and spir. turpentine, in combination, an excellent purgative—it having rarely failed in my hands to excite copious purging, which, though of much importance, it is often exceedingly difficult to procure.

PARALYSIS.

Character. Diminution or entire loss of voluntary motion, or of sensation, or of both, in
some particular part of the body, without coma.

*Description.* Often the consequence of apoplexy; but frequently also, independent of it. Most commonly, there is only loss of voluntary motion—sensibility remaining entire, or even morbidly increased. Total abolition of sensibility, very rare. The palsied limbs generally become soft, wasted, and shrunk—often with a peculiar sensation in them, as if insects were creeping over them (*formication.*) Mental hebetude, frequent in palsy—especially weakness, and sometimes total abolition of the memory. Entire change of the natural disposition, occasionally occurs in this disease.

*Paralysis* is divided, by nosologists, into three varieties, viz: *hemiplegia, paraplegia,* and *local palsy.*

The question, why the power of motion is sometimes lost, while that of sensation remains, and *vice versa,* has given rise to much controversy among physiologists. Galen supposed, that there were two sets of nerves—one destined to sensation, the other to motion. What this sagacious physician alleged, on mere speculative grounds, has recently been actually demonstrated by Magendie, and Charles Bell. It appears, from the experiments of these and other physiologists, that each nerve is composed of two distinct parts—the one for motion, and the other for sensation. From this anatomical fact, we perceive in what manner the phenomenon in question may occur.

*HEMIPLEGIA.*

Paralysis, confined to one side, including the whole half of the body, generally the consequence of apoplexy; the apoplectic symptoms are sometimes so slight, as to escape
Dr. Eberle last Summer treated a patient for hemiplegia. There was a complete loss of the influence of the will over the muscles of the upper and lower extremities, of the left side. The sensibilities remained unchanged. He thinks that these symptoms were produced by an inconsiderable attack of apoplexy.

The patient was bled, calis applied along the spine followed by blisters, liniments, medicinal prescriptions. This treatment was continued for 10 days, without the least apparent benefit to the patient. The Rhum Tonic, Codendro, was then added to it, saturated R. 40 drops, 3 times daily, for 10 days. The use of the linens was completely restored.

The inferior extremitie, however, remained as it was. The Rhum was stopped, and calis, blisters applied to the Number 2, 3, 4. After these means had been used for some days; the Rhum was again used and the patient recovered under its use and was subsequently destroyed by an apoplexy fit.
HEMIPLEGIA.

notice. Injuries done to the head may produce it.

Cerebral compression, or structural lesion, the proximate cause of hemiplegia. Seres denies that compression is ever the cause, either of apoplexy or hemiplegia; his experiments, however, are not conclusive; they are contradicted by those of Portal, and of Mr. Astley Cooper.

Hemiplegia often comes on gradually, with the usual symptoms of approaching apoplexy; occasionally, its attack is sudden. Anomalous symptoms. This affection sometimes terminates in a few days—more generally several months; and occasionally remains permanently. Sometimes, a greater or less degree of amendment occurs, and then the disease remains stationary.

PARAPLEGIA.

Paralysis of the whole lower half of the body, the parts above the hips remaining unaffected. Occurs most commonly after the middle period of life; and according to Baillie, more frequently in men than women.

Causes, most commonly seated in the brain, (Baillie, Earle, Halford, Copeland;) sometimes in the spinal marrow, producing an interruption to the passage of the nervous influence along the spinal cord, to the nerves of the lower extremities. The most common of those causes, which act immediately on the spinal marrow, are: thickening of the theca vertebralis, serous effusions into it, exostosis on the internal surface of the vertebrae. The higher these causes exist in the medulla spi-
nales, the higher will the paralysis extend. When above the fifth cervical vertebra, the hands will be paralysed; if below the eighth, they will not be affected. The effusion may occur, first between the membranes of the brain, and afterwards sink down in the theca vertebrais, and press upon the lower portion of the spinal cord.

When the brain is the primary seat of the disease, pain in the head, giddiness, drowsiness, impaired vision, and defective memory, usually precede the paralytic attack. The paraplegiac affection always comes on gradually—first by stiffness and slight difficulty of directing the motions of the lower limbs,—by degrees, the assistance of a stick is required to balance the body,—the urine is voided with difficulty, and finally passes off involuntarily—the paralysis becomes more and more complete, the fæces passing off unrestrained by the will.

PARALYSIS PARTIALIS—LOCAL PALSY.

Local paralysis consists of want of motion, or of sensation, or of both, in some particular part or organ of the body. It may attack some viscus, or the organs of sense, destroying or blunting their respective functions. It occurs in one extremity; in the muscles of deglutition; in those of the organs of speech; and even in a single muscle. It most frequently, however, occurs in the muscles of the face. Persons affected with facial paralysis, are deprived of the power of closing or opening the eyelids—of contracting the brow—of elevating the nose or lip—of shutting the mouth—of retaining the saliva—of raising the corner of the mouth—of
whistling or blowing, &c. The wing of the nose, on the palsied side, is collapsed; the mouth drawn towards the opposite side; the teeth exposed. The power of masticating remains—the tongue too retains its powers.

**Causes.** Facial paralysis is produced by some injury sustained by the *portio dura*, either in consequence of surgical operations, abscesses, bruises, or other injuries in the parotid region. It occurs also in consequence of thickening of the sheath of this nerve; of necrosis at the canal of the temporal bones, through which it passes out; and frequently from sudden exposure to cold, producing inflammation of the nerve. It has been produced by a blow on the head; by the suppression of cutaneous eruptions; and by tumours pressing on this nerve.

Paralysis of the wrists, is produced by the poisonous influence of lead; by bilious colic; and sometimes by dysentery. Whatever interrupts the free nervous communication between a part and the common sensorium, may produce paralysis in such part.

**Treatment.** Blood-letting of primary importance in the commencement of hemiplegia, preceded by apoplectic symptoms, and attended with a full and strong, or small and tense pulse. In some instances the pulse is small and feeble, in which case, bleeding is of course to be avoided, or at most, used with particular circumspection. Purgatives, perhaps, still more generally beneficial than blood-letting. In debilitated, leucophlegmatic, or hydropic subjects, mustard or capsicum may be very advantageously given in union with cathartics. An ordinary dose of calomel and jalap, with
from 20 to 30 grains of mustard, or from 6 to 8 grains of capsicum, forms an excel­lent purgative under such circumstances. *Emetics* have been particularly recommended in hemiplegia. They must be given in large doses, on account of the unirritable state of the stomach in this complaint. They are use­ful when the attack of the disease occurs soon after a full meal, or during the existence of dyspepsia. In recent cases, with signs of cephalic congestion, they are hazardous, unless blood be previously drawn. *Stimulating ene­mata* are useful remedies. Much advantage may be derived from rubifacient, vesicating, and stimulating applications to the paralytic parts. The depletory remedies just mentioned, cease to be proper after the disease has as­sumed a chronic character—that is, after the apoplectic symptoms have disappeared, and the undue determination to the head no longer exists. Means of an opposite character are now to be used, i. e. external and internal stimulating remedies. The former are, sina­pisms, warm bathing, blisters, moxa, cupping, galvanism, electricity, and frictions with the flesh brush, dry flannel, or with stimulating fluids. Blisters and sinapisms must be em­ployed with caution when the paralysis is complete, lest sloughing or mortification en­sue. They should be employed only as rubi­facients in such cases. In general, mere dry frictions, with flannel or the flesh brush, do more good than where rubifacients are used. *Electricity* has been employed with success in this city. It must never be employed in strong shocks; *weak sparks* are more effica­cious, and less apt to injure. *Galvanism* is more efficacious than electricity; it must be applied with only a moderate force. *Moxa*
LOCAL PALSY.

has been used with success in general paralysis, applied along each side of the spine, near the first dorsal vertebra, by Dupuytren.

Among the internal remedies, the following are the most useful:—Rhus toxicodendron. I have succeeded in curing two cases of hemiplegia, by the saturated tincture of the leaves of the rhus. The dose is from twenty to sixty drops, three times daily. Professor Osann of Berlin, recommends it to be given according to the following formula:—R. Tinct. rhostis, toxicoden. $ss$. Tinct. aconit. neamont. Tinct guaiaci. $s$. 3ij. m. Dose, forty drops every three hours. The nux vomica has of late years been much employed, and not unfrequently with success, in paralysis. When used in adequate doses, it produces strong convulsive contractions, more particularly in the paralytic parts. The extract is usually employed. It may be commenced with, in the dose of two grains, twice a day, and gradually increased until the spasmodic contractions come on. The arnica montana, is a favourite remedy with the German physicians in paralytic affections. Mustard seed, internally, has been found useful; I have employed it with advantage in hemiplegia. Iodine has been used with success, in paralysis depending on tumours or fluids pressing on the brain or spinal cord. Dr. Manson has related some remarkable instances of its beneficial operation. In paralysis of the tongue, a few drops of the ol. cajeput, put on the organ daily, has been found serviceable. Chewing the root of the anthemis pyrethrum, has also done good in palsied tongue. Would not moxaustion over the mastoid regions prove beneficial in this variety of palsy? In paralysis from lead, mercury is an excellent remedy; the nitrate
of silver has also been used with advantage, in this species of paralysis. When the wrists are palsied, the application of a splint along the inner side of the fore-arm has done much good. (Pemberton.)

**Epilepsy.**

**Character.** Convulsions, returning at uncertain intervals—accompanied with loss of sense and voluntary motion, and terminating in deep sleep.

**Premonitory symptoms.** A confused and wandering state of the mind; vertigo; ringing in the ears; indistinct vision; pain in the head; pain and anxiety in the praecordial region; change of the natural disposition; spasmodic twitches of the muscles of the face; aura epileptica, and a feeling of terror or alarm, are the most common.

**Symptoms of the paroxysm.** The attacks frequently occur at night, while the patient is asleep. If he is sitting or standing, he suddenly falls down, and becomes more or less violently convulsed. The countenance is frightfully distorted, and generally of a livid, and sometimes almost black hue—occasionally it is pale; the veins of the head and neck are turgid; the heart palpitates violently, and the breathing is oppressed and laborious, and in violent cases sterterous. A copious flow of frothy saliva, occurs towards the termination of the paroxysm. As the convulsions abate, stupor or deep sleep comes on, out of which the patient awakes in a state of mental torpor or confusion, which often continues for many hours—the countenance exhibiting a fatuous and stupid cast. The duration of the pa-
The Aura Epileptica which mostly occurs just before the intervention of an Epileptic fit, is compared to a current of cool air blowing against the part, or to an effusion of cold water over the part; it is this sensation which warns Epileptics of an approaching paroxysm and which enables them to place themselves in a place of security.

When the Aura occurs in the legs, it is said that the approaching paroxysm can be prevented by applying a ligature or tourniquet above the part in which the sensation is felt.

It is asserted that the cause of the disease is seated in part where the aura makes its appearance. A spicule of bone has been known to cause the disease by irritating a nerve; the Aura always being seen in the neighbourhood of the spicule.
Eberla has known this disease in the course of two years to produce a total loss of every thing like intellect in an intellectful boy of 14, the mental devastation was so complete that there was not sufficient instinct left to prompt the lad to eat when food was offered him. The opinions that this disease is in many cases owing to Lunar Influence is supported by some powerful cases, but not sufficiently strong, to warrant the assertion that the moon exercises any influence generally. It has been contended whether intestinal irritation is sufficient to give rise to this disease, it has no doubt that intestinal irritation is a very frequent cause of this disease especially in children. Frequently occurs in females about the period of puberty from the irregularity in the menstrual discharge, especially when irregularity of the menstrual discharge, becomes, as in the case of Habitual Discharges, of Habitual Discharges, a complaint, the last is as certain as etiology causes and any Habitual use of spirit does not produce this disease.
 Roxysm varies in different cases, from a few minutes to several hours. Sometimes there is but one fit at a time; at others, three or four, and even more paroxysms, occur in quick succession, before the disease terminates. The fits are in general more protracted in children than in adults. Sometimes the attacks are strictly periodical in their recurrence, more generally, however, they return at irregular intervals, and the duration of these intervals is exceedingly various. Epilepsies, depending on intestinal irritation and catamenial irregularities, are most apt to become periodical. (Richter.) The periodicity of this disease is ascribed to lunar influence, by Mead, Balfour, and others. This opinion is not supported by sufficient testimony to entitle it to credit.

Epilepsy is seldom fatal, except by the intervention of apoplexy. By repeated recurrence, it never fails to impair the understanding—terminating sometimes in perfect idiotism.

**Autopsic phenomena.** According to Wentzel, the cerebellum is much more frequently found diseased, than the cerebrum. The pineal gland is often found in a morbid state; tumours and other structural derangements are, in some instances, discovered in the cerebrum. In the cerebellum, have been noticed indurations, and a peculiar friable matter between its lobes, with destruction of a portion of their substance. This latter appearance is said to be frequently observed. In many instances, however, not the slightest traces of organic disorder are discoverable, either in the cerebellum or cerebrum.

**Predisposing causes.** Predisposition, sometimes constitutional, and even hereditary, and al-
ways augmented by the attacks of the disease. Young people, about the age of puberty, most liable to epileptic attacks.

Exciting causes. Some act directly on the brain—the disease being then called idiopathic. Others act on remote parts—affecting the brain sympathetically—this constitutes symptomatic epilepsy. Among the former causes, are: malformation of the skull; depressed bones; exostosis from the internal surface of the cranium; organic derangements; vascular congestions and effusions in the brain, &c. Among the most common causes of the latter class, are: intestinal irritation from worms and other irritants; dentition; suppression of the catamenia, of hemorrhois, and of perspiration; the drying up of old ulcers and issues; the repercussion of exanthematic eruptions, or of chronic cutaneous diseases, as measles, small-pox, itch, and tinea capitis. Excessive sanguineous and other evacuations; onanism; various poisons, both vegetable and mineral; habitual intemperance in the use of spirituous liquors; pregnancy; irritation from biliary concretions and urinary calculi; sudden and violent terror; anger, and grief; disagreeable and strong impressions on the senses; spiculae of bones, tumours, &c. pressing upon, and irritating some nerve; the sight of a person affected with the disease.

Proximate cause. Various opinions expressed by authors. A temporary local turgescence of the cerebral vessels, is probably the immediate cause of the epileptic paroxysm. (Johnson.) According to Mansford, an accumulation of electric matter in the brain, constitutes the proximate cause. Others regard organic derangement of some part of the
brain as its immediate cause. I regard the first opinion as the most probable.

**Diagnosis.** Sometimes confounded with hysteria. They may be distinguished by the following circumstances. In hysteria, there is no foaming of the mouth, nor is the countenance so livid and distorted as in epilepsy; the hysteric paroxysm does not terminate in heavy sleep, as does the epileptic. In hysteria, there are globus hystericus, involuntary laughing, weeping, and other hysteric symptoms.

**Prognosis.** Not much immediate danger. In relation to its sanability, however, the prognosis is always unfavourable. Symptomatic, more frequently cured than idiopathic epilepsy. Cases depending on catamenial irregularities, in young females, most frequently yield to remediate treatment. The more frequently it has recurred, the more difficult the cure. Epilepsies that come on soon after birth, are hardly ever cured. Cases produced by falls and blows on the head, are very generally incurable. From the period of dentition, to that of puberty, the most favourable age for the cure of the disease. It is more unfavourable, when the precursory symptoms consist of some affections in the head, than when they are felt in other parts, particularly the extremities. Protracted sleep and stupor after the paroxysm, very unfavourable.

**Treatment.** In prescribing for epilepsy, we must first endeavour to ascertain its original exciting cause—its duration—the time and manner of the first attack—the constitutional habits of the patient—his age, pursuits, con-
comitant disorders, temper, and mode of living. It is upon these circumstances alone, that a rational treatment can be founded. The treatment is divided into *palliative* and *curative*. The former applies to the paroxysms—the latter to the intervals between them. The attack may sometimes be prevented *during the period of the premonitory symptoms*, by bleeding where there are marks of general plethora, brisk cathartics, emetics, a draught of *cold water*, and ligatures round the limb, above the part to which the *aura* (where this sensation precedes the attack) has risen. Richter asserts, that emetics are particularly useful in warding off an approaching paroxysm, in cases that continue from habit, after the original exciting cause no longer exists. I have known an epileptic person, who could frequently prevent the paroxysm, when he felt it approaching, by a draught of cold water. Jahn mentions similar cases.

*During the paroxysm*, our principal object is to lessen the preternatural determination to the head, and with it the chance of apoplexy. With this view, *bleeding* in full habits, an *elevated position* of the head, with *cold applications* to it, the removal of every thing which may compress the veins of the neck, and *sinapisms* to the feet, may be beneficially employed. No treatment will either materially mitigate or shorten the paroxysm.

*The radical cure* is to be attempted during the intervals. Where the exciting cause can be ascertained, and is of a nature capable of being *removed*, this should be immediately attempted, as the first and most important curative measure. When gastric irritation from worms,
acidity, and other causes, exists as its cause—as is often the case with young children, anthelmintics, emetics and purgatives, absorbents and tonics, are proper. In verminous epilepsy, valerian, in union with small doses of calomel and flores zinci, has been found efficacious. When suppressed perspiration has given rise to the disease, diaphoretics should be employed; here, camphor with tartar emetic, guaiacum, sulphur, together with the warm bath, warm clothing, and dry frictions, are particularly serviceable. When repercussion of cutaneous affections, or the drying up of old ulcers, was the original cause, issues, vesicatories, pustulating applications, warm bathing, frictions, and stimulating diaphoretics, are the appropriate remedies. When the disease arises from menstrual irregularities, means must be employed to obviate the morbid determination to the head, and to establish the regular determination to the uterine system. Here, bleeding is generally an indispensible remedy; the warm semicupium, frictions about the back and loins, stimulating enemata, the internal use of spirits of turpentine, of tincture of cantharides, and other emenagogues, (after proper depletion,) are peculiarly serviceable. In epilepsy from dentition, blisters behind the ears, leeching, purging, scarifying the gums, and a mild diet, are especially indicated. When onanism is its cause, camphor internally, with cold applications to the genitals, and a seton on the back of the neck, have been found beneficial.

Remedies that are employed empirically, or that are supposed, or do possess specific anti-epileptic powers:—

Valerian. A very ancient remedy. It should be given in as large doses as the stomach
will bear—a drachm three times daily. It forms a principal ingredient in the famous powder of Ragoloi, which, according to Knopf’s analysis, is composed of Valerian, ʒj. Powdered orange leaves, ʒj. Muriate of Ammonia, grs. ii. and ol. cajeput, gtt. iv. Richter has cured inveterate cases with this remedy.

The Misletoe, recommended by De Haen, Van Swieten, Hufeland, Stark, Richter. Cullen thinks it may have done good, from its having early been an object of superstition, and thus bringing with it the powerful aid of the imagination. Frazer states, that he cured nine out of eleven cases, with the viscus quercinus, in doses of from ʒij. to ʒij. twice daily. Dr. Fothergil and Wilan, speak well of its powers in this disease.

Animal Oil of Dipple. According to Richter, particularly valuable in epilepsies from metastasis of gout, rheumatism, and repelled cutaneous eruptions.

Spirits of Turpentine. Lately much extolled for its virtues in this disease. Drs. Latham, Young, Percival, Money, and Prichard, have used it with decided success. Dose from ʒss. to ʒjj. thrice daily. I have lately cured a case with this remedy.


Artemesia Vulgaris. Has lately been used with singular success, in the Polyclinic Institution at Berlin; and late Numbers of Hufeland’s Journal, contain several well authenticated cases of its successful employment. It is said to be particularly useful in epilepsies, coming on about the age of puberty, and
In epilepsy depending upon a suppression of the mensles, he has employed the following mixture in the form of pills to restore the catarrh with the most decided uniform success:

He considers it one of the best emmenagogues extant; he has restored the discharge after every other remedy had failed.

Pill: Saffron 5j
Sal Tarentina prx
Pills, Alex. 5j

Diss. 4 Pill. in 1.

To take one every 6 hours.

Spts: Turpentine: From its well known tendency to obviate flatulency and disperse collections of gas generated in the intestines, would it not be a good anti-hemorrhagic remedy?
Epilepsy, depending upon drunken or excessive venereal indulgence, the venereal appetite in these cases appears to increase with indulgence and the indication is to lessen the increased desire, and to check its gratification, with this view camphor is to be given internally (it is said not only to moderate the venereal appetite but in some instances to destroy it altogether) and applications to the generative seat; sores, blisters, issues to the back of the neck and spinal column.

Frus: Ferri. Used in this disease 15 gr. per day for 3 weeks, never fails to reduce and allay the irritability of the arterial system.
Carb: Ferri. Has been recommended it should be given in large doses 3 jij daily.
Valerian gr. 14, mix a tincture every morning.
Boraeic acidi gr. 1, at one dose.
Melt 6 jij of this and with success an occasional purgation in a European institution.
Epilepsy.

more so in females than in males. The root is given in doses of about thirty grains, four times daily, and gradually increased. Etmuller says of it—*mire in epilepsia valet.*

*Camphor, Musk, Castor, Assafetida.* The first of these articles is said to be particularly adapted to cases arising from repelled cutaneous affections, and from onanism.

*Stramonium, Belladonna.* Both these narcotics have been employed with occasional success in epilepsy. I once succeeded in removing the disease in a child, by means of belladonna and cuprum ammoniacum. Hufeland speaks highly of the tincture of *Stramonium,* and Odhelius cured eight out of fourteen cases, in the hospital of Stockholm, with this remedy.

*Opium.* Epilepsy has been cured by this narcotic. Darwin cured two cases with it, and Dr. Huxy relates an instance of its successful use. Richter states, that cases produced by mental excitement, pain, or exhaustion, are often benefited by it.

*Phosphorus.* This potent article is recommend-ed by Horn, Lobenstein-Læbel, and Van Hoven. It is improper, in cases attended with general plethora.

*Zinc.* A valuable remedy in this disease. *It should be given in large doses.* Dr. Guthrie commenced with eight grains of the *flores zincl,* and increased the dose until it amounted to two scruples a day. Many cases are reported of its successful employment. The *sulphate,* less useful than the *flowers* of zinc, in epilepsy.

*Cuprum Ammoniacum.* Cullen speaks favourably of its powers in this disease. The number
of cases reported of its efficacy, is not inconsiderable. I have used it with success in one case.

**Acetate of Lead.** Dr. Rush gave this article with success, in epilepsy. About fifteen years ago, I reported a case which yielded to its powers. This case was strictly periodical—the paroxysms returned at each full moon. Three grains were given, morning, noon, and evening, for three or four days previous to the usual period of return, and continued for three days after this period. It was not till the fifth period of recurrence, that the disease was subdued, and the person has continued free from the complaint to this day, although he had suffered its periodical attacks, for seven or eight years before he came under my treatment.

**Tin.** Strongly recommended by Dr. Shearman, in a late Number of the London Medical Repository. He employed the elutriated oxyd of this metal, in doses of from $\frac{9}{ij}$ to $\frac{3}{ij}$ night and morning; and, he assures us, with much success.

**Nitrate of Silver.** This article possesses more reputation, as a remedy in this disease, than any other article of the materia medica. *It should be given in as large doses as the stomach will bear.* We may commence with one grain, three times daily, and increase it gradually, which may often be done to a surprising extent. Dr. Powel has ascertained, that triple the quantity of this article may be taken without inconvenience, in the form of pills, as in solution.

**Mercury** has been used with success in epilepsy, by Burserius, Tissot, Houssel, Willis, Et-
muller, Frank, Richter, Cullen, Locher, and others. It is seldom used at the present day.

Galvanism has been found beneficial in this disease. It should be applied steadily and constantly. (See Mr. Mansford's work on this subject.)

Setons and Issues. These are ancient remediate means, in epilepsy. They have, no doubt, been employed with advantage, particularly in cases depending on repercussion of chronic cutaneous affections. In one instance, I have known a caustic issue on the back of the neck aggravate the disease greatly. Larrey speaks very favourably of bleeding from the vessels of the head, followed by blisters, moxas, or other counter-irritants, on and about the head. Tartar emetic ointment has, by its pustulating effects, cured this disease. (Creighton.) The actual cautery was used by the ancients, and by De Haen and Larrey among the moderns, with success, in this disease.

The following composition has been employed in this city, with decided benefit, in epilepsy. R. Pulv. Zingiberis, Pulv. *Salviae officinalis, P. Sem. Sinapi, ëë 3j. M. Dose three teaspoonfuls every morning, fasting, with an occasional purgative.

Music. Quarin cured a girl by music. Other cases, to the same effect, are mentioned by Brückman and Lichtenthal.

CHOREA.

Chorea almost always occurs before or about the age of puberty—rarely beyond the twentieth year of age. It is always gradual in its ap-
Chorea. During the forming stage, the appetite is variable; sometimes ravenous; the bowels constipated; vertigo; palpitation of the heart; oppression and anxiety in the praecordial region; fulness and tension in the head, with occasional mental confusion; cold feet; variable disposition; itching in the nose, &c. The first manifestations of the spasmodic affection are, slight, irregular motions of the muscles of the face, and an awkwardness in the gait—progression becoming starting and hobbling. The irregular involuntary actions gradually increase in violence and constancy, until the arms and legs are almost in continual motion, and the countenance variously and uninterruptedly distorted. The voluntary muscles alone are affected. Like epilepsy, chorea, by long continuance, weakens and finally destroys the intellectual powers. In very protracted cases, some degree of fever generally supervenes, and the muscles waste and become flaccid. During sleep, the irregular muscular contractions often cease.

There is something very remarkable in the circumstance, that the irregular motions, which the utmost exertion of the will cannot control during the period of its activity, cease, when it is no longer operative during sleep. It would seem, that the stimulus of volition is in some degree essential to the disease.

Chorea appears to occur more frequently in girls than boys. In about twenty cases I have seen of this disease, there was but one instance in which the patient was a male. Children of a nervous temperament, are most liable to the disease.

Exciting causes. Intestinal irritation from various irritating substances lodged in the alimentary canal; fear and terror; repercussion of chronic cutaneous eruptions; cold; sup-
pression of catamenia. It is sometimes the consequence of typhous and other severe forms of fever.

**Proximate cause.** I believe it to be essentially a cerebral affection, because: 1. The voluntary muscles alone are affected: 2. The intellectual faculties soon suffer: 3. The loss of the power of volition over its legitimate dependencies.

**Prognosis.** Not often fatal. When produced by worms, or other irritating substances in the intestinal canal, it generally yields, without much difficulty, to remediate treatment. When caused by cold, also, it is seldom very difficult to cure.

**Treatment.** In plethoric subjects, with a super-excited state of the pulse, bleeding is proper. Generally, however, sanguineous evacuations are not required. *Purgatives* are among the most valuable remedies we possess, in this disease. (Hamilton.) In a majority of cases, the bowels are infarcted with feculent matter, and this appears often to exist, as the primary cause of the disease; hence the utility of daily purgation, in many cases. When worms are the cause of the disease, anthelmintics, but particularly spirits of turpentine with castor oil, are particularly beneficial. *Tonics* ought to be employed, in alternation with purgatives, unless contra-indicated by the state of the system. The *cold bath*, bitter infusions, sub-carbonate of iron, quinine, and flowers of zinc, are the tonics usually employed. They are especially advantageous, during the period of convalescence. The *nitrate of silver* has been employed successfully in this disease. (Cramp-
CHOREA.

Of the remedies that have been used with success, in this disease, are the following. *Chenopodium ambrosoides*. Dose, 3j. in powder, three times daily. (Hufeland, Plenk.) *Cardamine pratensis*. The flowers are recommended by Sir G. Baker. Dose, 3j. *Camphor*, in combination with Valerian. (Wilson, Pitt.) *Belladonna, Stramonium, Opium*, have been recommended, but have very properly fallen into disuse. *Cuprum ammoniacum*; Wilson relates cases that were cured with this article. (Lond. Med. Phys. Jour.) *Electricity*, very moderately applied, has done good. *Rhusfasciens, blisters, tartar emetic ointment*, along the course of the spine, are remedies of considerable power in this disease. The diet must be simple, unirritating, and digestible.

TETANUS.

Character. Tonic spasms of the voluntary muscles,—the powers of sensation and thought remaining unimpaired.

*Tetanus* is divided into different varieties, viz: *trismus opisthotonos, emprosthotonos, pleurothotonos*. In the first, the muscles of the jaw are chiefly affected; in the second, the extensors of the back, producing *recurvation* of the body; in the third, those on the anterior part, producing *incurvation*; and in the last, those on the side are principally affected, causing a *lateral* curvature. These divisions are of no practical importance. It is divided also into *idiopathic* and *traumatic*—the former variety being the result of general causes—the *latter*, of external injuries. This division has an important bearing both on the *prognosis* and treatment of the disease.
Symptoms. Its approach is almost always gradual, the symptoms being developed in the following order. Slight difficulty of deglutition, and change of the voice; an uneasy sensation in the praecordial region; stiffness in the muscles of the neck and jaws. These symptoms having increased to a considerable degree of violence, sudden painful retractions about the ensiform cartilage, with simultaneous retraction of the head, occur. Deglutition is painful and difficult, and re-excites the spasms. The spasms acquire more and more violence and frequency, until the retraction of the head, and rigidity of the whole body, become truly frightful. The mind is seldom affected; the appetite generally remains, and digestion goes on regularly. Costiveness almost always attends. The muscles supplied with ganglionic nerves, and those which move the fingers, remain free from spasm, until near the fatal termination of the disease. The disease usually terminates before the fifth or sixth day—sometimes it continues much longer; and occasionally it assumes a chronic form.

Causes. Various injuries. Contused, lacerated, and punctured wounds, most apt to produce tetanus. A partial division or laceration of a nerve, apt to excite it. The introduction of cold and damp air into gun-shot wounds, when casting off their sloughs, favours the production of tetanus. (Larrey.) The application of caustic to encysted tumours; compound fractures; the insertion of artificial teeth; amputation; ligatures, including nerves; cutting corns too closely, &c. have all frequently produced the disease. Cold and damp night air, after fatigue and exposure to a high de-
gree of atmospheric heat during the day, is the most common general cause. Hence its frequency in tropical climates. Atmospheric heat, a powerful predisposing cause of tetanus. Traumatic tetanus generally comes on about the eighth or ninth day after the infliction of the wound; frequently not until it is cicatrized.

Proximate cause. Galen, Willis, Hoffman, Frank, and Berserius, referred the original seat of the disease to the spinal marrow, and this opinion obtains pretty generally at the present day. It is supported by the post-mortem appearances, and the circumstance, that the muscles, supplied by spinal nerves, are almost exclusively affected.

Prognosis. Traumatic tetanus, seldom cured. The idiopathic form, less difficult of cure. According to Parry, the disease always terminates fatally, when the pulse rises to 120 beats in a minute, on the first day; if, by the fifth day, it does not exceed 110, a favourable issue may be expected.

The favourable signs are: a very gradual supervention of the disease; abdomen not very hard; bowels easily moved; moist and moderately warm skin; sound sleep; an increased flow of saliva; a natural expression of the countenance. When the majority, or all of these circumstances occur, we may entertain hopes of recovery. The unfavourable signs are: a sudden and violent invasion of the disease; great rigidity of the muscles of the back, neck, and abdomen; violent pain and retraction in the pit of the stomach; very hard and retracted abdomen; spasmodic twitches of the muscles of the neck and jaws, on firm abdominal pressure; hydrophobic symptoms. (Morrison,)
TETANUS.

TREATMENT. Divided into prophylactic and curative—the former refers to the prevention, the latter to the removal of the disease. Wounds or injuries from which tetanus is apprehended, should be brought to suppurate as soon as possible. For this purpose, scarifications, free division with the knife, irritating applications, such as spirits of turpentine, caustics, &c. are employed. When the disease has made its appearance, constitutional are to be used conjointly with the local remedies. The most important of these are:

Blood-letting, employed ad deliquium, in conjunction with mercury and opium, has cured the disease. (Med. and Phys. Jour. 1821.—Medico Chir. Trans. vol. ii.)

Purgatives always proper, as auxiliary means, particularly in trismus nascentium. (Chalmers, Hamilton.)

Opium, is one of the most efficacious remedies we possess, in this disease. It must be given in large and frequent doses. Dr. Morrison, who was particularly successful with it, commenced with 100 drops of laudanum, and increased each succeeding dose, by one-third this quantity every two hours.

Mercury, highly and deservedly recommended by many, in the treatment of this disease. It is more efficacious in idiopathic, than traumatic tetanus. It may be advantageously used, conjointly with the warm bath, opium, &c.

Spirits of Turpentine has recently been employed with success, by Drs. Hutchinson, Toms, and Mott. Dr. Mott's case, is a striking example of its usefulness in this disease. After the hot and cold baths, tobacco, opium, S
bark and wine, and blisters to the spine, had been fairly tried without benefit; a tea-spoonful of turpentine, given every fifteen minutes, relieved the spasms in two hours; and by continuing its use until 123 tea-spoonfuls were taken, the disease was perfectly removed.

Wine, and other alcoholic liquors. This was a favourite remedy with Rush. Opium is now generally, and I think properly, preferred. When employed, it must be very freely given. Rush gave it in conjunction with bark and mercury.

Tobacco, both by the mouth, and in the form of enemata, has been found decidedly beneficial. An interesting example of its efficacy, is related in the third volume of Dublin Hospital Reports, by Dr. O'Beirne. Dr. Anderson used tobacco baths, fomentations, and enemata, with success, in several cases. (Med. Chir. Trans. of Edinburgh, vol. i.) It must be employed with caution.

Cold affusions, a very ancient remedy in tetanus. (Hipp. Aphor. Lib. iv. Sect. v. Aph. 2., and Lib. v. Sect. ii. Aph. 21.) They were successfully used by Drs. Wight, Cochrane, and Currie. I have known a case cured by salivation and cold affusions, conjointly.

Cantharides, given internally, has effected cures. Dr. Brown, (New-York Med. Repos. vol. iv.) cured a case with this medicine. It should be given so as to produce strangury.

Prussic acid. Cases of its successful employment in this disease, are related by Drs. Pat tison, and Trezevant.

The warm bath, a useful adjuvant; it generally procures temporary relief. Some practi-
A Miller on this disease states that he has never known it to supervene in consequence of a wound, after the 20th day, after the accident had elapsed, and he always considered his patient free from danger when he had passed this period.

Purgatives useful in the disease: particularly in the form of it called 'tinctura nux vomicae.'
tetanus.

TETANUS.

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Tetanus. Have found it to do harm; particularly Dr. Hillary. The exertion and movement which it requires of the patient, is said, by Dr. Morrison, to do injury.

Blisters, along the whole tract of the spine, have done much good in this disease; a more powerful, prompt, and efficacious means of this kind, however, is the application of caustic potash, as first recommended by Dr. Hartshorne of this city. (Eclectic Reper. vol. vii.) Whatever other remedies may be employed, the application of this caustic, along the course of the spine, should never be neglected. The cases which have been reported, illustrative of its efficacy, are by no means few.

The actual cautery along the spine, is said, by Mursina, to have effected a prompt and perfect cure. The good effects which I have witnessed from the application of the actual cautery, in deep seated articular inflammation, convinces me that there is no means in our possession, by which we can produce so prompt and powerful an impression on the inflammation of internal cavities and parts, as this potent agent.

PERTUSSIS—WHOOPING COUGH.

Character. A contagious cough—paroxysmal, convulsive, and suffocative; inspiration during the cough shrill—the cough frequently terminating in vomiting.

Whooping cough may be divided into three stages: 1. The forming stage; characterized by the usual symptoms of ordinary catarrh; i.e. lassitude, weakness, and head-ache; sneezing; slight hoarseness; discharge of
thin mucus from the nose; restless sleep; inappetency; and generally slight febrile symptoms; the cough is shrill, dry, and comes on in sudden but short paroxysms, without whooping. This stage lasts from two to three weeks: 2. The *convulsive stage*; characterized by violent paroxysms of *convulsive* and *suffocative* cough, the inspirations being difficult and stridulous, and attended with a sense of obstruction or spasmodic stricture of the glottis. These paroxysms return at first five or six times daily, and gradually increase in frequency, so as, at last, to return almost hourly. The approach of a fit of coughing, is always announced by a sense of stricture in the breast, and titillation in the larynx and *præcordiæ*. The paroxysm lasts from a half to four or five minutes, and terminates by vomiting, or the discharge of a large quantity of viscid mucus from the bronchia. Pain is felt in the breast, immediately after the cough. The duration of this stage is very various: in general, it lasts from four to six weeks: 3. The *stage of declension*; this stage begins, when the spasmodic and suffocative character of the cough begins to abate. The declension of the disease is always very gradual; its duration is as various as that of the other stages—commonly from two to four weeks.

**Prognosis.** Whooping cough is seldom fatal, except by the supervention of bronchitis hydrocephalus, cyananche trachealis, pneumonia, convulsions, or marasmus. *Sequela.* Glandular swellings, dropsy, epilepsy, ophthalmia, struma, rickets, general cachexy, phthisis, &c.

**Proximate cause.** The opinions on this sub-
Whooping Cough was supposed to have been introduced into Europe from Africa somewhere about the 13th Century. But Hippocrates, and some of the oldest writers speak of it and it appears to have been known from the earliest periods of our profession. This disease is a most singular and mysterious one, a cough which is highly contagious and which destroys the susceptability of the system to a second impression from it. Chronic Bronchitis is apt to occur in the progress of the Cough, and when it occurs the discharge is of the consistence & colour of cream. Cough is apt to occur, scrofula often is a latent The proper discharge in Whooping Cough is transparent & viscid.

This disease though almost peculiar to the infantile age, yet it sometimes occurs in adults. Children have been called; when it occurs in winter it is much more protractio and difficult of cure. If this disease depended upon inflammation, the cough ought to subside with the fever, the converse is the case. The younger the child the greater the danger. Persons with Whooping Cough very sensible to atmospheric Changes
Abens, to Elnut, that the disease is a Dyspepsic one produced by some affection of the Phlegm of nerves.

Proof. Naps has ascertained by experi-ment that when the bow was pulled in profuse and braved by a pair of fevers, that violent Chorea. Cough is immediately induced, and that when the other respiratory nerves are treated in the same way, that this effect does not follow.

As there is during the paroxysm of Coughing, a great tendency to congestion in the Throat, it seems certainly would increase this congestion and endanger the patient from this cause.

Carb. Sodic. cock. 80 x Pearson's Alkaline
Sugar 80... Solution
Water 3

He has always produced relief in the course of 24 hours by the employment of the B
Robetic Acid, and by its continued use, has in many instances shortened, and the disease. When the disease arose in the Chronic from the Bank Quinins and Bals. Opii or are valuable medicinal agents, Where the digestive powers are strong the Bals may be used, when the reverse is the case the Bals. in order to increase the Deleity of the Stomach.
ject are exceedingly various. Marcus, Whatt, and others, regard it as a peculiar species of bronchial inflammation. Webster regards the brain as its primary disease. Albers considers it as depending on a peculiar irritation of the eighth pair of nerves. Some view the stomach as its original location; and others regard it as a spasmodic disease, allied to asthma. My own opinion coincides with that of Albers. My reasons for rejecting the doctrine of its being an inflammatory affection, are stated in the lecture. The inflammatory symptoms which frequently occur in this disease, are not essential, but accidental to the disease. In many cases, not the slightest febrile symptoms occur; and when we reflect on the almost constant agitation and irritation which the lungs suffer from the cough, we have good grounds for believing, that the inflamed appearance of the mucous membrane of the bronchia, so commonly found on post-mortem examination, is the effect, and not the cause of the disease.

TREATMENT. It is generally believed, that whooping cough, like the exanthematous fevers, cannot be arrested in its course, but that, when once developed, it necessarily passes through its different stages. This I hold to be an erroneous opinion, being thoroughly persuaded, that it is susceptible of being arrested at any time, whether in its forming, convulsive, or declining stage.

Bleeding and leeching. Both may be employed with decided advantage, in cases accidentally complicated with inflammatory symptoms, or where much cephalic congestion exists. The disease cannot, however, be subdued by them.
Purgatives, of the mild kind, are proper, in cases attended with constipation, a loaded state of the bowels, or preternatural determination to the head.

Emetics, always beneficial, unless great gastric irritability exists. They free the bronchia and trachea of the viscid mucus with which they are loaded, and perhaps do good by their impressions on the pneumo-gastric nerves.

Narcotics. Belladonna is a valuable remedy. It is much used in Germany and France. I have employed it in a number of cases, with great advantage. Dose for a child under one year, ½ grain; from two to three years, 2½ grains of the powdered root. Conium maculatum, rhus vernix, hyoscyamus, opium, lactuca virosa, pulsatilla nigricans, and solanum nigrum, have all been used and praised as remedies in this disease.

Antispasmodics. Assafetida in emulsion, useful, where no symptoms of febrile irritation exist. Musk, Valerian, amber, castor, &c. have been beneficially employed. Not a great deal, however, is to be expected from this class of remedies.

Tonics. Cinchona, quinine, flowers of zinc, and arsenic, are remedies of much value, where no signs of internal inflammations exist. I have given large doses of quinine, with marked advantage.

Expectorants, are seldom of much service. Pearson’s alkaline solution, and Kerme’s mineral, suspended in a mucilaginous fluid, are among the best of this class of remedies.

Lobelia inflata. I have found the tincture of this plant, a most valuable remedy in whoop-
WHOOPING COUGH.

ing cough. From ten to fifteen drops are to be given four times daily, to a child between the first and second years of age.

Tinct. Cantharides, highly recommended by Armstrong, Chalmers, Millar, Buchholz, Loder, Lettsom, Hufeland, and others. It must be used until slight arder urinæ occurs.

External applications. Frictions, with tartar emetic ointment, along the spine, or over the præcordial region, will generally prove decidedly useful. This practice originated with Autenreith. (Richter.) Blisters and rubificants are indispensable, when pulmonic inflammation exists.

Balsam Copaiva, is a remedy of inestimable powers, when the disease has degenerated into chronic bronchitis, and the expectoration is puruloid.

Inhalations. The inhalation of balsamic vapours, the nitrous acid vapour, and the vapour of tar, are strongly recommended by some recent writers. I have used the nitrous acid vapour with benefit, in several violent cases.

The diet should be simple and unirritating; and great care must be taken against the influence of cold and damp weather.

ASTHMA.

Character. Great difficulty of breathing, attended with a sense of suffocation, great thoracic constriction, wheezing, and cough.

Symptoms. The attack usually preceded by premonitory symptoms; such as, drowsiness; head-ache; itching of the skin; flatus; heart-burn; acid eructations; sickness; fulness
and anxiety about the præcordia; weight over the eyes, &c.

The paroxysm generally comes on at night, during sleep. It is characterized by; inexpressible anxiety; very laborious wheezing, and suffocative breathing; great tightness about the chest; countenance bloated and livid—sometimes pale; cold extremities; intense desire for cool fresh air; incapability of lying down; pulse weak, irregular, frequent, and often intermitting; abdomen distended with wind; cough, at first dry; a copious expectoration of viscid mucus occurring in the course of some hours, bringing with it considerable temporary relief. The symptoms remit greatly, during the ensuing day. On the next night, however, the fit generally returns. In this manner, it often goes on with remissions by day, and exacerbations by night, for five or six days; and sometimes much longer.

Predisposition. The disease rarely occurs before the age of puberty. The predisposition appears to consist in an irritable and weak condition of the respiratory organs. It seems, in some instances, to be hereditary. Persons of weak muscular power, and disposition to obesity and corpulency, are most liable to the disease.

Exciting causes. Particular conditions of the atmosphere, in relation to its humidity, electricity, and temperature; various irritating substances conveyed to the lungs; suppression of accustomed discharges; repercussion of cutaneous affections; metastasis of gout or rheumatism; general plethora; gastric and intestinal irritation; derangement of the digestive functions; certain odours; indigestible aliment; anger, and terror.
Cbera thinks this disease depends upon a peculiar irritation of the 6th pair of nerves, which interrupts in some measure the decomposition of the air and the arterialized state of the blood, by these nerves, hence the distress which is experienced by the patient, forces him to make great effort, with the respiratory muscles, to inspire a greater quantity of air.
Authors have divided asthma into a great many varieties. It does not appear to me, that these distinctions are of any practical utility; although it is unquestionably of much importance to attend to the nature of the exciting cause, in prescribing for the disease.

Proximate cause. The opinions on this subject, very various. Cullen ascribed it to a preternatural spasmodic constriction of the bronchiae. Parry, to a vascular fulness of the bronchial membrane, by which the air cells are mechanically diminished. Potter, to general venous congestion of the lungs. Bree, to an irritation seated within the air cavities, caused by a viscid and irritating serum. My own opinion is, that it depends on a peculiar irritation of the pneumogastric nerves, in consequence of which, the regular transmission of the nervous influence to the lungs, is interrupted. This opinion is founded: 1. On the effects which are produced on respiration, by dividing the eighth pair of nerves, which entirely resemble the phenomena of asthma: 2. The suddenness with which the spasmodic breathing may often be allayed, by certain medicines, as the lobelia inflata: and, 3. The beneficial effects resulting from the transmission of the galvanic influence through the lungs.

Treatment. Bree affirms, that we can do but little towards mitigating the paroxysm. He is wrong; I have often seen the paroxysm arrested, in less than thirty minutes.

Bleeding. When the disease arises from the suppression of some habitual evacuation, and is attended with general plethora, blood-letting
is indispensable. Whenever the pulse is hard or tense, blood should be drawn.

*Emetics*, are much recommended by some. When gastric irritation exists, from indigestible diet, or other causes, they are serviceable. Under other circumstances, they seldom do much good.

*Purgatives*, beneficial, when the bowels are disordered. Bree recommends chalk, in union with rhubarb.

*Expectorants*, a useful class of remedies in this disease. Floyer regarded vinegar of squills as a specific in this disease, which, however, it is very far from being.

*Diuretics*, are serviceable, in dropsical habits. A copious flow of urine, is always a favourable occurrence.

*Antispasmodics*, are seldom useful. In habitual or chronic asthma, opium with ether, has been found beneficial.

*Narcotics*. Hyoscyamus, stramonium, tobacco, and opium, have been recommended. They are occasionally palliative, particularly in protracted or habitual cases. The root of the stramonium is to be cut fine, and smoked in a pipe.

*Symlocarpus foetida*. I have known the infusion of the root of this plant, give great and prompt relief.

*Lobelia inflata*. I regard this vegetable, as decidedly the most valuable remedy we possess, for arresting or mitigating the asthmatic paroxysm. My own experience, corresponds entirely with the statements published by Drs. Thatcher, Stewart, Cutler, and others, of its valuable remediate effects in this dis-
Droshy. The doctrine of Rush with regard to the pathology of this disease, was not noticed in Europe for 20 years after it was taught in this Country. At length Blackstone published his work on Droshy with the same pathology claiming it as his own, and the whole credit of removing this disease from the Castrica and placing it with febrile diseases was given to him by the British Journalist, though the doctrine of Rush could not have been continuous to theirs.

More recently Appre published his work in which he states that he is indebted to no writer for his views of the nature of this disease, yet in many passages he used (with all the hardiness and old plagiarist) nearly the same words with Dr. Rush.

Dr. Ehrle thinks that Arsenic acts by creating general sub-inflamed condition of the capillary system, thus to be the immediate cause of Droshy, producing increased action of the heat and diminished action of the absorvent he has seen small vesicles of the skin produced by small doses of Arsenic.
ease. I have known a violent fit of asthma completely allayed, in the course of thirty minutes.

Coffee. A cup of very strong coffee, will often procure much alleviation in this complaint. (Percival.)

Digitalis, in combination with small doses of opium, recommended by Drs. Ferriar and Percival.

Prussic acid, employed with advantage, by Drs. Oliver and Granville.

Galvanism has of late years been employed with much advantage in this complaint, by Dr. Philip, and others. The galvanic influence must not be communicated with much force. The two wires of a weak galvanic trough, are to be attached, one to a piece of metal placed on the pit of the stomach, and the other on the side of the neck, over the par vagum.

The prophylactic remedies are of the tonic kind. Bark, iron, tonic bitters, with occasional mild aperients, moderate exercise, and above all, a light and digestible diet, with the use of the cold shower bath, are to be used during the intervals of the attacks.

ANGINA PECTORIS.

Symptoms. Sudden and violent pain about the sternum, extending to the arms, attended with great anxiety, difficulty of breathing, and a sense of suffocation; pulse seldom materially affected—sometimes irregular or intermittent; countenance pale, and expressive of intense anxiety; extremities cold. The
attack usually comes on while the patient is walking. At first, it lasts but a few minutes, and returns after long intervals; but by degrees the fits recur oftener, and become more protracted.

**Predisposition.** It occurs more frequently in males than females; and exceedingly seldom in young persons. Subjects of a gouty or rheumatic habit, with a tendency to corpulence, are most liable to the disease.

**Causes.** Ossification of the coronary arteries, and valves of the heart; dilatation of its ventricles; a softened structure of the heart, and other organic affections of this organ, and of the adjoining parts. In some cases, however, not the slightest traces of structural derangement are found on dissection. Dr. Johnson thinks, that a neuralgic affection of the cardiac plexus may produce it—an opinion which is, I think, well founded. From all that has been ascertained in relation to this subject, it would seem, that angina pectoris is an affection which may be excited by a variety of causes; and it appears to me probable, that the essential nature of the disease, consists in an irritated condition of the cardiac nerves.

**Prognosis.** The disease is generally believed to be incurable; and when it depends on structural derangement of the heart, it undoubtedly is so. There are some well attested cases on record, however, which yielded to remedial measures. Death almost always occurs suddenly. Fothergill, Wichmann.

**Treatment.** For the relief of the paroxysm, bleeding, opium, hyoscyamus, a recumbent posture, and perfect rest and quietness, are often found beneficial. To prevent the return
of the disease, the following remedies have been employed with advantage. Guaiacum; opium, musk, and camphor, in union, (Shaffer;) cicuta, assafetida, and camphor, (Johnstone;) flowers of zinc and opium, (Perkins;) lime water and antimony, (Smith;) Frictions with tartar emetic ointment on the breast, (Godwin;) phosphoric acid, (Baumes, Richter;) James's powder, (Smith;) a rigid antiphlogistic regimen, (Odier;) arsenic, (Hufeland, Blane;) prussic acid; hyoscyamus; stramonium; cuprum ammoniacum, &c. All kinds of spirituous drinks are injurious; so are strong mental emotions; inordinate venereal indulgence; strong corporeal exertions; sudden atmospheric vicissitudes; indigestible and irritating articles of food, &c.

CHAPTER XVIII.

DROPSY.

Pathology of Dropsy. Dropsical effusion is not, properly speaking, a disease, but only an effect of disease. The morbid condition upon which dropsical effusions depend, is either inflammation, or a state of the exhalants closely allied to inflammation. (Rush.) The doctrines which allege, that torpor of the absorbents, or relaxation of the exhalants, is the proximate cause of the effusion, are examined, and their insufficiency pointed out. There is, no doubt, always deficient venous absorption, because that condition of the capillaries, which disposes to excessive exhalation, is essentially connected with a congested state
of these vessels, and congestion, or vascular fulness, always impedes absorption. (Magen-die.) Observations on the character of the urine in hydropic diseases. In some instances, the urine contains more or less serum; in others, it is entirely destitute of it. According to the observations of Blackall, Willis, and Ayre, it is in the sub-acute and idiopathic forms of dropsy, that the urine is loaded with the greatest quantity of serum. In dropsy from scarlatina, there is generally a large quantity of serum in the urine. In local dropsies, not attended with general excitement, the urine is seldom charged with any serum. (Ayre.)

When the heart sympathizes with the local or general morbid action of the exhalants, febrile symptoms attend. When the morbid excitement of the exhalants does not extend to the heart, the general circulation is languid, and debility and relaxation characterize the disease.

The general indications in the treatment of dropsy, are: 1. To procure the absorption and elimination of the effused fluid: 2. To correct the morbid action of the serous exhalants, from which the effusion takes place.

Dropsy is divided into three principal varieties: viz. Anasarca, ascites, and hydrothorax.

ANASARCA.

In this variety, the effusion takes place into the cellular tissue. It may be either local or general. A part that is anasarcous, pits, on pressure. It almost always begins in the feet or legs—the swelling diminishing during the night, and increasing towards evening. The urine in this, as in the other varieties of dropsy, is always
scanty and high coloured; the countenance is sallow, the general system sluggish, and there is usually much sleepiness. Anasarca is frequently connected with effusion into the abdomen and chest.

**Causes.** Local anasarca may be produced, by whatever impedes the return of the blood from a part—as, indurated glands pressing on large veins, ligatures, &c. It arises also from mere general debility; diseases of the heart; phthisis, &c.

**General Anasarca** may result from hemorrhages, diarrhœa, diabetis, and other circumstances that rapidly exhaust the system. Observations on the manner in which these causes produce dropsy. *Sudden suppression of perspiration,* particularly after scarlatina, measles, or while under the influence of mercury, a frequent cause of general anasarca. Dropsy from this cause, always decidedly phlogistic. General anasarca may also result from the internal use of arsenic—from torpor of the kidneys—from amenorrhœa, general plethora, with a relaxed habit, chronic diseases, intestinal irritation, &c. Observations on the modus operandi of these causes.

**Proximate cause.** A sub-inflammatory action of the exhalants of the cellular tissue, attended with increased exhalation, and diminished venous absorption. It appears to me probable, that congestion in the venous capillaries, performs an important part in the production of dropsical accumulations. This idea is discussed, at length, in the lecture.

**ASCITES.**

*Abdominal Dropsy.* Its causes are sometimes local, at others general. The local causes are
such as impede the circulation through the portal system of vessels—among which, visceral indurations, particularly of the liver and spleen, are the most common. Dr. Ayre denies that visceral obstructions produce dropsy; they notwithstanding frequently do so. The most common general cause of ascites, is cold, either generally or locally applied. When the result of this cause, its character is always conspicuously inflammatory; the blood usually exhibiting the buffy coat; the skin being dry and hot; the pulse frequent and tense, and the urine loaded with serum. Ascites is seldom wholly free from anasarca. Intestinal irritation, sometimes gives rise to abdominal dropsy. It occurs as the sequel of peritonitis. Diagnosis.

Proximate cause. A morbid action of the exhalants of the peritoneum, attended with capillary congestion, and diminished venous absorption.

HYDROTHORAX.

Serum effused into the cavity of the thorax. It is characterized by the following

Symptoms. Oppression in the chest; difficult respiration, particularly when lying down, or ascending heights; dry cough; a sense of suffocation, when in a recumbent position; sudden starting during sleep; pulse intermitting, or irregular; thirst considerable; urine scanty; œdema of the feet; a pale bloated countenance, &c. Divided into symptomatic and idiopathic. The first arises from organic affections,—the latter from general causes.

Causes. Organic affections of the heart. When from this cause, the effusion occurs on both
Extension of the lower extremities is procured in the puerperal state by the pressure of the uterus on the iliac and hypogastric vessels thus are the obstruction of the returning circulation causing dropsy. In the same manner a congested state of the liver and spleen cause abdominal dropsy. Congestion always terminates in a subacute inflammation. I think that before dropsy and swelling take place, the capillaries are congested and subsequently slightly inflamed in consequence of this congestion.
sides. *Chronic pleuritis*, a frequent cause of hydrothorax. It may also result from a tuberculous state of the pleura, and even from structural disease of the stomach and liver. This is by far the most frequent variety of hydrothorax, and is almost always incurable.

*Idiopathic* hydrothorax, is of very rare occurrence, and generally easily cured. The effusion almost always occurs only on one side—that side becoming sometimes considerably enlarged, by the pressure of the fluid.

General plethora, predisposes to hydrothorax; particularly in persons who have passed the middle period of life, and who indulge in the pleasures of the table, and use but little exercise.

**Diagnosis.** A sense of suffocation on lying down, and on firm pressure on the abdomen, will generally distinguish it from mere organic disease of the heart. Percussion, produces a *dull* sound, and the *stethoscope* detects the absence of the respiratory murmur.

**Treatment.** When the heart sympathizes with the primary local irritation, or with the morbid action of the capillaries from which the effusion occurs, *blood-letting* is an important remedy. It is indicated in all cases, in which there is tension and quickness of the pulse. *Local* bleeding, from the thorax or abdomen, recommended by Ayre, in hydrothorax and ascites.

*Diuretics*, are important remedies in hydric diseases. Their operation is, however, rather palliative than curative—that is, they evacuate the effused fluid, rather than correct the morbid action on which the effusion depends. In full and phlogistic habits, their operation
HYDROTHORAX.

Talis. Should be given until the mouth is slightly affected by it. Relaxed and scorbutic habits, inimical to its beneficial influence. Especially valuable, where there is organic disease of the liver.

Sulphuret of Iron. I have seen much good done by this article, in cases attended with a relaxed and very debilitated state of the system; particularly in the anasarca of females, from excessive sanguineous discharges. It acts as a powerful diaphoretic, as well as tonic.

Diaphoretics, are indicated, when the disease is the consequence of suppressed perspiration from cold. Antimonials, in such cases, act beneficially.

Blisters, and rubificents, to the chest or abdomen, in hydrothorax and ascites, are strongly recommended by Ayre. I have seen much good derived from a blister over the abdomen, in a case of ascites. Tapping.

DIARRHEA.

Character. Frequent feculent stools, generally copious, always more liquid than natural, commonly attended with griping, but free from tenesmus and fever.

Causes. Some act directly on the alimentary canal; others indirectly, through the medium of the general system. Of the former kind, are: indigestible and irritating articles of food; acrid secretions; worms; acid, and other irritating substances received into the stomach. Among the more general causes, are: dentition; cold, particularly when connected with humidity; the repercussion of cutaneous eruptions; various general and lo-
cal diseases, as phthisis, affections of the liver, &c. It may also be excited by violent mental emotions, as terror and grief.

**Proximate cause.** An increased irritability of the intestines, giving rise to increased peristaltic motion. In protracted cases, the mucous membrane of the intestines is generally in a state of chronic inflammation, and frequently more or less ulcerated. (Broussais, Abercrombie.) According to Broussais, when diarrhœa continues beyond the thirtieth day, it almost invariably depends on organic disorder of the mucous membrane of the colon. He asserts, that chronic inflammation of this membrane, exists in all cases. This is doubtful. When ulceration exists, it is always most conspicuous in the cæcum, and the lower part of the colon.

**TREATMENT.** The principal indications are: to subdue the irritability, or phlogosis of the bowels; and to remove as much as possible, all local irritating causes. These indications are to be fulfilled: 1. by determining the circulation to the surface, and thereby lessening the afflux of blood to the vessels of the intestines; and, 2. by prescribing the most simple and unirritating articles of food. To allay intestinal irritability, and determine to the surface, opium, with small doses of calomel, or of ipecacuanha, and minute portions of calomel alone, are excellent remedies. *Mild laxatives* should be premised. In the diarrhœa of children, attended with a tumid and hard abdomen, laxatives are our principal remedies. *Astringents*, with *mild tonics*, useful, in diarrhœa from mere debility of the stomach. *Astringents* improper, where there is much griping and tenderness of the abdomen, and in all inve-
terate cases. Absorbents proper, when acidity is the cause. *Balsam Copaíva,* an excellent remedy in very protracted and obstinate cases. I have used spirits of turpentine with much advantage, in such cases. A *flannel* roller round the abdomen, beneficial in all cases. A farinaceous diet is of the utmost consequence.

**CHOLERA.**

*Character.* Frequent and violent vomiting and purging, with severe griping and cramps in the extremities.

*Symptoms.* Its attack is almost invariably sudden. There is at first pain and tension in the epigastric region—followed soon by colic pain about the umbilical region, attended with nausea, upon which vomiting and purging speedily ensue. The discharges are at first watery, and *without* bile; nor is there often bile thrown from the stomach, in the commencement. After the disease has continued for some time, however, *bile* appears in the evacuations. The most distressing symptom, is the excessively severe cramps which occur in the abdominal muscles, and the extremities, in violent cases. Cholera seldom continues more than 24 hours—it often terminates in death, within two hours.

*Causes.* A superabundance of bile in the stomach, is not, as was formerly, and is still thought by many, the immediate exciting cause of cholera. There is, on the contrary, a *deficient secretion of bile*—the liver being in a congested and inactive condition. The torpor of the liver, is generally in direct proportion to the violence of the disease. (Johnson.)
CHOLERA.

TREATMENT. The principal indications are: to allay the morbid irritability of the alimentary canal; to restore the regular action of the skin and liver; and to determine the circulation from the internal to the external parts. At first, bland diluents are proper. Opium in large doses, either alone, or in combination with calomel; sinapisms to the abdomen; the warm bath; spiced brandy; nitric acid vesication; and anodyne injections; are the remedies upon which our dependence must be placed. Of these remedies, opium largely given, and sinapisms to the abdomen, are decidedly the most efficacious. Calomel should be given with the opium. Calomel is a valuable remedy by itself; half a grain should be given every half hour. Bleeding has been found useful in the Asiatic cholera. It is seldom indicated in the disease, as it occurs in our climate.

COLIC.

Colic is divided into several varieties, according to the nature of the exciting causes.

Flatulent colic, so called, from the prominent symptoms of indigestion and flatulency which attend. It is produced by irritating and indigestible articles of diet. Debility of the digestive organs, predisposes especially to this variety of colic. The colic pains come on, an hour or two after the indigestible diet is taken. Sometimes, the food passes into the bowels in an imperfectly digested state, and then the pain does not come on so soon, and is felt low down in the abdomen. At first, there is a sense of distention in the pit of the stomach, followed soon by pain,
which rapidly increases, until it acquires an intense degree of violence. The pain occasionally remits. During the exacerbations, the patient throws himself about, and presses firmly on the abdomen with his hands. Large quantities of air are from time to time forced up, or pass off downwards.

**Diagnosis.** Distinguished from enteritis, by the agitation of the patient; by the relief obtained from abdominal pressure, and by the pain frequently remitting. In all these respects, the reverse obtains in enteritis.

**Prognosis.** Generally not dangerous, unless it terminates in inflammation, which sometimes, though not often, occurs. It sometimes produces a paralytic state of a portion of the bowels, giving rise to habitual costiveness.

**Treatment.** In slight attacks, carminatives and anodynes are often sufficient to procure relief. Remedies of this kind, generally answer well, when the stomach does not contain any irritating substances. When it does contain irritating substances, an ipecacuanha emetic must be given. *Purgatives* to be used when the pain is below the stomach; they may be advantageously combined with aromatics. I prefer castor oil and spirits of turpentine, in union. *Enemata*, always useful. Where the pain is excessive, opium, in very large doses, with calomel, is a valuable remedy—it does not materially impede the subsequent operation of cathartics. *Bleeding* must be practised, in robust and plethoric subjects, to obviate inflammation, and to promote the operation of the necessary purgatives.

*Bilious colic*, so called, from the bilious vomiting, and other symptoms, manifesting functional derangement of the liver.
The more urgent and peculiar symptoms of this variety of colic, are generally preceded by head-ache, want of appetite, bitter taste in the mouth, thirst, and bilious vomiting. The colic pains are excessively acute; pressure at first gives relief; but the abdomen becomes tender to the touch, as the disease advances. Immediately after vomiting, the pain suffers a temporary abatement. The bowels are generally immovably torpid. About the second or third day, the eyes and skin become yellow. Tremour, numbness, and paralyses of the arms, occasionally occur in this disease. Eructations are common, and afford temporary relief.

Causes. Marsh miasmata. It occurs most commonly during the autumnal months, particularly after a long continuance of hot and humid weather. It may, however, be produced also by causes of a sporadic character. It is generally believed, that the liver is in a state of morbid activity—that it secretes a superabundance of bile. Dr. Staly contends, that the liver is torpid—that there is a deficiency of bile. I have come to the same conclusion.

That there is functional derangement of the liver in this variety of colic, does not admit of a doubt; but I do not believe the biliary secretion superabundant, but on the contrary diminished and vitiated. That this is the case, may be inferred from the analogy which subsists between bilious colic and cholera morbus. Dr. Gregory observes, that bilious colic is closely allied to cholera, occurring along with it, and apparently differing from it only in some unessential features. Now it appears to be well established, I think, that in cholera, the liver is far from being over-active—that it is, in fact, in an engorged and torpid condition, secreting but a very small portion of bile. Excessive irritability of the stomach, and torpor, with congestion of the liver, almost always appear in connexion with each other. We have a further support for this opinion,
in the fact, that, whenever the alvine discharges become bilious, an amendment takes place.

**TREATMENT.** The principal indications are: 1. To free the bowels from their irritating contents: 2. To allay the irritability of the stomach and bowels: and, 3. To restore the healthy action of the liver. *Emetics* are very useful in the beginning, when there is not full spontaneous vomiting. *Purgatives* are of primary importance. They can seldom be given, however, with effect, until the gastric irritability is allayed. Small doses of *calomel*, $\frac{1}{2}$ grain—given every half hour, answer well to prepare the stomach for the reception of purgatives. Our principal reliance must be placed on the full operation of purgatives. *Opium*, given in full doses, affords much advantage after free purging; it should always be given in combination with calomel. Mild aperients to be used, for several days after the bowels have been once freely evacuated. *Epispastics*, *sinapisms*, and *warm fomentations*, are valuable auxiliaries. *Bleeding* must be freely employed in robust and plethoric subjects, with the view of obviating inflammation. *Alkaline remedies* are proper, when acid exists in the prime viæ; magnesia is the best article of this kind. The *warm bath*, a useful auxiliary. The utmost caution is to be used in relation to diet and exposure, during the period of convalescence. There are few diseases which are so apt to return, from errors in these respects, as the present one. Flannel should be worn round the abdomen. Very cold drinks must be avoided, during convalescence.

**COLIÇA PICTONUM.**

This variety of colic is known by various names; as, painter’s colic, dry-gripes, Devonshire colic,
The Dry Belly Ache of Tropical Climate is a disease which approaches in its symptoms to Cholera; however, the symptoms are not so violent, nor by any means so alarming, and do not require so strict an economy in diet. It is cured by drinking New Rums which contains a portion of lead from its mode of preparation. After the disease is 1 or 2 years old, it does not produce the disease; the lead is rendered innocuous by the action of the New Ocean States of the Earth. Not only injurious, New Tea has relieved the symptoms of Dry Belly Ache which consist in pain, nausea, and constipation, he has relieved the symptoms of Dry Belly ache caused by the long use of Sugar, Salt in Cases of Dehydration by Green Tea and Better Infusions.
_Colica Pictonum._

_colica pictavensis, rachialgia mentalis, and saturnine colic._

The disease generally comes on gradually, and is usually preceded by symptoms of gastric derangement—such as irregular appetite; constipation; foul eructations; transient pains in the abdomen; languor; pale countenance, &c. This variety of colic is attended with constant and extremely severe pain about the umbilical region; the abdominal parietes are hard, and forcibly retracted; and the bowels almost immovably constipated. The pain suffers occasional remissions, but no perfect intermissions, as in the other varieties of colic. It sometimes assumes a chronic form, producing _wasting and palsy of the fore-arms._

The predisposition to it is greatly increased, by having once suffered an attack.

_Causes._ Lead; hence its frequency with painters, glaziers, and workers in lead factories. _Sudden atmospheric vicissitudes, (Larrey;) new and sour wines; unripe fruits, &c._

_Treatment._ The indications are: 1. To obviate inflammation; 2. To relieve the spasms of the bowels; and, 3. To evacuate them.

_Bleeding_ should be freely employed in robust and plethoric subjects—or when the pulse is hard, quick, and tense. _Opium with calomel,_ is a remedy of primary importance. Both these articles should be given in very large doses, with the view of relieving the intestinal spasm, and bringing on an early mercurial action. Two grains of the former, with the same quantity of the latter, may be given every two hours, until the pain and spasms are relieved. _Purgatives to be given after the_
opiates. They seldom fail to excite purging, as soon as the gums are affected with the mercury, and when preceded by very full doses of opium. Purgatives should be given in a liquid form. Cold water, dashed on the abdomen and thighs, has been found useful in promoting the operation of cathartics. Alum, in fifteen grain doses, every three hours, much recommended by Richter. Stimulating enemata, highly beneficial. The warm bath, a useful auxiliary. To relieve the paralyses and other sequelæ, mercury is the best remedy. Nitrate of silver has also been successfully used, for the relief of the paralyses. Pemberton's splint.

DIABETES.

This disease consists in the secretion and voiding of an unusually large quantity of urine, attended with a very dry skin; great thirst; slight febrile movements; voracious appetite; a sense of weight and uneasiness in the stomach; white and foul tongue; great lassitude; pain and weakness in the loins; irregular bowels; cold feet; dull and heavy eyes; and towards the last, great wasting of the flesh, and debility; vertigo; head-ache; difficulty of breathing; spongy gums; offensive breath; constant drowsiness; and hectic fever. Prout mentions inflammation and uneasiness about the external orifice of the urethra.

Diabetes occurs under two distinct forms, viz: diabetes mellitus, and diabetes insipidus. Of the latter, there are three varieties; 1. That in which the urine contains an excess of urea; 2. That in which the urine is albuminous; and, 3. That in which it is surcharged with phosphates.
Dr. Oberm has seen 4 deaths from diabetes and in each instance the patient sank down and expired into a low torpid apoplectic condition. This disease makes its approach in a gradual manner, progressing for 2 weeks or longer before the patient is aware that he is labouring under it. In some instances it is hereditary. Dr. S thinks that the disease is primarily a disease in the kidneys.
Diabetes mellitus. In this variety, the urine is saccharine, of a pale straw colour, sometimes approaching to a greenish hue; its smell resembles that of milk. It always contains less urea, than healthy urine. Prout, who restricts the term diabetes to this variety, says, that diuresis is not essential to the disease.

A natural predisposition to diabetes, exists in some individuals. I have known three members, out of one family, die of this disease.

Of the exciting causes we know little or nothing.

Proximate cause. The opinions on this head are exceedingly various. Sydenham, Rollo, Cullen, and others, regard derangement of the digestive functions, and want of energy in the assimilative powers, as the primary affection. Objections stated to this opinion. I regard diabetes, as a disease essentially and primarily located in the kidneys,—the stomach, lungs, skin, and in short the whole system, becoming secondarily affected. The sugar contained by the urine, is wholly the result of a morbid action of the kidneys, for the serum of the blood of diabetic patients, does not contain a particle of it. It would seem, that the urea which is secreted with the urine in health, is converted into sugar in diabetes. The analogy between urea and sugar, pointed out. Sugar contains just double the quantity of oxygen and carbon, and the same quantity of hydrogen, as urea—this latter substance possessing, in addition, a large proportion of azote, of which sugar is destitute. As diabetic urine contains very little or no urea, we may regard the sugar it contains, as a depraved secretion of urea.

Prognosis. Diabetes mellitus, is an exceedingly obstinate and dangerous affection, the in-
stances of recovery from it being comparatively very few.

Treatment. Various and diametrically opposite plans of treatment, have been recommended. Bleeding has been used with success, by Watt. In recent cases of a phlogistic character, it is often beneficial; not so in protracted cases, or where there is much exhaustion. Topical bleeding, sometimes useful. Opium holds a high rank, as a remedy in this disease. Ferriar gave it in union with bark and uva ursi. Prout prefers the pulv. ipecac. compos. Opium, with carbonate of iron, has been used with much advantage, in chronic cases, with much debility and nervous irritation. (Latham, Prout.) Sulphate of quinine, a useful article in such cases. Magnesia, strongly recommended by Dr. Trotter; I have known it to do some good. Emetics, used successfully, by Richter. Warm bath, and frictions with the flesh-brush, useful auxiliaries. Exclusive animal diet, is generally admitted, as decidedly the best kind of food in diabetes. Of late, Dr. Starkey has published some cases, from which it appears, that, contrary to the generally received opinion, a vegetable diet is sometimes more beneficial, than one consisting principally, or wholly, of animal substances. He cured cases with a vegetable diet, and one drachm of phosphate of soda, three times daily. Other remedies have been recommended, such as: cuprum ammoniacum; alum, in 3j. doses; tincture of cantharides; camphor; hepatized ammonia; phosphate of iron, &c.

Excessive diuresis, with an excess of urea.

Urine generally pale; reddening litmus, when
first voided; free from sediment, being prone to decomposition; and becoming alkaline. The desire to pass urine, is frequent and urgent; the urine apt to be increased in quantity, by cold weather. The functions of the skin are natural; the pulse remains unaffected; no particular thirst, or craving for food; the bowels are in general regular. Persons of a thin and spare habit, about the middle period of life, most subject to it.

**Causes.** Whatever debilitates the general system, and particularly the urinary organs, as masturbation.

**Treatment.** Tonics, with alkaline remedies and opium. Mercury, in alterative doses; purgatives. (Prout.)

**Excessive Diuresis, with Phosphatic Salts in the Urine.** Symptoms. Great general irritability; dyspeptic phenomena; sometimes costiveness; at others, debilitating diarrhoea, the stools being very unnatural in appearance; pain and uneasiness in the loins; countenance sallow and haggard. As the disease proceeds, great "languor, depression of spirits, coldness of the legs, complete anaphrodisia, supervene. The urine is pale—very prone to decomposition." (Prout.) The sediment consists chiefly of the phosphates.

**Causes.** Injuries done to the back—excessive fatigue—depressing mental emotions—irritation about the neck of the bladder, by calculi, and other circumstances.

**Prognosis.** The prognosis is in general unfavourable, particularly when resulting from injury of the back. (Prout.)

**Treatment.** Opium is, according to the experience of Prout, the only remedy that can be
employed with any particular advantage, to al­
lay the excessive general irritability which pre­
vails in this disease. After the morbid irrita­
bility has been allayed, tonics must be given in 
conjunction with the opium—such as the 
mineral acids, cinchona, iron, uva ursi, and 
bitters. A stimulating plaster to the back 
and loins, will prove beneficial. A strong in­
fusion of alchemilla arvensis, has been found 
useful. Hyoscyamus, with uva ursi, very 
serviceable, where the constitution is sound, 
and the irritation is confined to the urinary 
organs. The diet should be digestible, mild, 
and nutritious. (Prout.)

CHAPTER XIX.

INDIGESTION.

Symptoms. Variable appetite—generally none; 
flatulence, distention, acid eructations, and 
colic pains, after eating. These symptoms 
characterize the slighter cases of the disease. 
By repeated errors in diet, or long continu­
ance, it generally assumes a more aggravated 
form; in which case the stools lose their na­
tural appearance, becoming bilious, very fetid, 
sometimes of a very dark colour, at others 
too light, or greenish,—and often mixed with 
portions of undigested food; the skin be­
comes sallow; the urine high coloured, and 
sedimentous; diarrhœa, followed by consti­
pation; griping; a sense of weight in the 
right hypochondrium; tenderness of the epi­
gastrium; a foul and clammy tongue; debi­
licity, particularly after the operation of purges;
Obelo thinks that in many cases of Dyspepsia, the food is pushed on through the alimentary canal too rapidly; in consequence of an increased action of the muscular coats of the intestines, he thinks that it has not time to digest, that it does not remain a sufficient length of time in the stomach to be acted upon and reduced to a palatable mass.

The most easily digested meats for dyspeptics are those that are prepared by boiling stewing or broiling. Roast and fried meats are the most indigestible, they become covered by an empyreumatic crust which is very indigestible and offensive to the stomach.

He has used Acid NitroUrur as a stimulant to the liver with the greatest benefit.
great despondency, and irritability of temper; emaciation; a haggard expression of the countenance; frequently uneasiness of lying on the left side, and at last inability to rest easily on either side; a shrivelled and dry state of the skin, in protracted cases; great sensibility to low temperature, &c.

**Causes.** There are two conditions necessary for healthy digestion, viz: 1. The secretion of a due quantity of healthy gastric liquor; 2. A healthy tone of the muscular coat of the stomach. Whatever therefore deranges either of these two functions, impairs digestion. The remote causes which are capable of effecting these morbid changes, act either directly on the stomach, or indirectly, through the medium of the general system. Of the former kind are: all kinds of substances capable of irritating the stomach—such as irritating and indigestible articles of diet; the habitual use of spirituous drinks; the excessive use of condiments, opium, and other narcotics; the immoderate use of very warm, or very cold drinks; chronic hepatic disease; over-distention of the stomach, by food or drink—of all the causes of indigestion, this latter one is the most common. The circumstance which most commonly gives rise to over-distention of the stomach, is *rapid eating*; high seasoning, and great variety of food, is also a frequent cause of over-distention. Over-distention does injury, by weakening the muscular fibres of the stomach, and by irritating the nerves of this organ. (Philip.) Among the causes that affect the stomach, secondarily, through the general system, are: the depressing passions; intense study; excessive venereal indulgence; and whatever debilitates the general system.
Proximate cause. Irritation of the nerves of the stomach, and debility of its muscular fibres, either existing singly, or conjointly. In consequence of these conditions, the solvent gastric fluid becomes either depraved in quality, or deficient in quantity; and the contents of the stomach are not adequately embraced, and propelled forwards to the pyloric extremity.

Observations on the multifarious sympathetic effects of gastric irritation, from imperfectly digested food in the prime, and on the morbid effects which result from the absorption of imperfectly elaborated chyle into the circulation.

Treatment. The treatment of indigestion is divided into dietetic and medicinal. In slight cases, a proper attention to diet, with the occasional use of mild aperients, and a rigid avoidance of the exciting causes, will rarely fail to establish a cure. In all cases, whether simple or complicated, mild or violent, an undeviating attention to diet, is essential in the management of the disease. No particular direction in relation to the kind of diet, can be laid down, which is applicable to all cases. Some dyspeptics feel relieved by articles of food, which are altogether intolerable to others. Every dyspeptic must learn, in a great measure, from his own experience, what will, or will not, agree with him. The degree of violence of the disease, too, has an important influence upon the power of the stomach, to bear particular kinds of food. What may be taken without inconvenience in the first periods, will generally become insupportable in the latter stages of the disease. At first, when mere debility of the stomach
exists, the more digestible kinds of *animal* food, are decidedly the best; but if the disease continues, until a high degree of irritation, or chronic phlogosis, exists in the mucous membrane of the digestive organs, animal food is no longer proper—the disease then requiring the mildest articles of the farinaceous kind. Animal, is undoubtedly more digestible than vegetable food; and where the gastric irritation is not very considerable, it will very generally be taken with the least inconvenience. As a general rule, therefore, we may lay it down, as an established principle, that animal food is the most proper; and of this, the most tender muscular parts are to be used. The flesh of old, is in general more digestible than that of young animals. Mutton, and most kinds of game, are of easy digestion. Pork is generally difficult to digest, yet some dyspeptics bear it better than other meats. Acaceous and oily articles, are most difficult of digestion. Venison is perhaps the most digestible of all meat. New bread is of exceedingly difficult digestion. Simple roasting, and boiling, is the best mode of preparing meat for weak stomachs. All kinds of fried articles of food, are intolerable. Cheese, milk, cream, and butter, are generally oppressive. Spices and condiments should be taken very sparingly. Fresh vegetables are very generally injurious, particularly cabbage, peas, and beans. Of fruits, cucumbers, pears, melons, currants, are the most indigestible. The food should be taken chiefly in a solid state. Slow eating, and perfect mastication, are all-important observances for dyspeptics. Not much drink should be taken during meals, or soon after. Moderate portions of good brandy, answer
well in slight cases, but are improper in the more aggravated ones. Simplicity in diet, is of the utmost importance; and what is of equal, if not of still greater importance, is, to avoid over-distending the stomach.

**Medicinal treatment.** In slight and recent cases, gentle emetics, and aperients, to remove the irritating contents of the stomach and bowels, with the use of mild tonics, alkalines when the eructations are acid, and an animal diet, will generally remove the disease. To relieve the gastric pains, small doses of opium may be occasionally used. When functional disease of the liver exists, alterative doses of blue pill, with the occasional exhibition of some gentle laxative, are of great utility. Care must be taken, however, not to continue the use of the mercury, until the general system becomes affected by it. General mercurial excitement, is always improper, in dyspepsia. The nitro-muriatic acid, will often prove serviceable, as a local tonic, and by its action on the liver. When the gastric irritation has assumed the character of chronic inflammation, that is, when the epigastrium becomes tender to pressure, the pulse tense and irritated, the tongue red, &c. tonics, emetics, animal food, and all stimulating remedies, are injurious. The diet must be of the lightest farinaceous kind; leeches, or blisters to the epigastrium, are often highly useful; the nitrate of potash, dissolved in some mucilaginous fluid, the occasional use of mild purgatives, and gentle diaphoretic drinks, with the use of very small doses of the blue pill, must be resorted to. In very protracted cases, attended with a broken-down constitution and general irritation, mercury is improper.
ICTERUS—JAUNDICE.

Symptoms. Skin and eyes yellow; faces clay coloured; urine bilious, communicating a yellow stain; generally, slight pyrexia; occasional pain (sometimes very violent) in the epigastrium; indigestion; languor; nausea; a sense of fulness in the stomach; torpor of the bowels; colic pains; drowsiness; bitter taste; debility, and indisposition to corporeal and mental exertion; disturbed sleep, &c.

The fundamental affection, is either an idiopathic, or sympathetic derangement of the biliary organs, or of the duodenum, by which the bile is either obstructed in its passage into the intestines, or its secretion is suspended.

The occasional causes, are very various. The principal are: intemperance in the use of spirituous liquors; irritating substances in the primæ viæ; cold; suppression of acute and chronic cutaneous eruptions; acrid bile irritating the common duct; biliary concretions plugging up the duct; violent anger; injuries and concussion of the brain; spasm of the duodenum, or of the common bile duct; induration and enlargement of the pancreas; grief; terror; constipation; viscid mucus clogging the orifice of the common duct; retained meconium; indurated liver; and, in short, whatever is capable either of suspending the secretion of bile, or preventing its natural egress from the liver. When it depends on spasm or biliary concretions, the pain is occasionally very violent.

Proximate cause. The external icteric phenomena, depend on the secretion of bilious X
matter into the sub-cuticular tissues, in consequence either of the resorption of bile into the general circulation, or of the retention of its elements in the mass of the blood, in case of hepatic torpor. When this occurs, the general capillary system, and particularly the cutaneous capillaries, perform the office of the liver vicariously, and free the blood of a portion of its superabundant biliary elements, by depositing them into the skin, &c.

Observations on the ratio symptomatum.

Great wasting of the flesh, and dropsy, are common sequelæ of very protracted and obstinate cases. The jaundice of new-born infants, is generally transient, and of no particular moment. When it depends on chronic hepatic disease, it is seldom cured. In general, however, it is not a dangerous affection, though often of difficult removal.

TREATMENT. The mode of treatment, should of course be modified, according to the nature of the fundamental hepatic affection. When there is fever, with symptoms of local inflammation, bleeding and blistering, with mercurial purgatives, must be chiefly relied on. When spasm of the common duct may be presumed to be the primary cause, which is attended with violent pain, constant nausea, and frequent vomiting; opium, stramonium, hyoscyamus; emetics, in nauseating doses; valerian; assafiaetida; infusion of chamomile; purgatives; the warm bath; emollient cataplasms, or fomentations to the epigastrium; anodyne frictions, and enemata. When torpor of the liver exists, as the fundamental pathological condition, (in which case, there is little or no pain experienced,)
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calomel is the principal remedy—it should be
given in purgative doses. Benefit may also
be derived, from infusion of taraxacum; sa­
onaria; alkalies; ammoniac; mercurial fric­
tions on the right hypochondrium; antimo­
nials; blisters and sinapisms on the region of
the liver; and active purgatives. When bili­
ary concretions exist, as the cause of the dis­
ease, emetics; purgatives; the warm bath;
electricity; opium; stramonium; hyoscy­
mus; alkaline remedies; copious bleeding;
nauseating doses of antimonials; are service­
able. Durande recommends a mixture of
vitriolic ether and spirits of turpentine, in the
proportion of two parts of the former, to one
of the latter, in doses of twenty drops, four or
five times daily, as a valuable remedy. Guy­
ton Morveau, recommends a solution of the
yolks of eggs, in vitriolic ether, as very
efficacious.

SCORBUTUS.

SYMPTOMS. First stage. Unusual languor, and
want of muscular energy; stiffness of the
knees; depression of spirits; a pale, sallow,
lead-coloured, bloated countenance; skin dry,
and covered with livid spots and blotches, par­
ticularly on the thighs, legs, arms, and abdo­
men; edema about the ankles; gums spongy,
and apt to bleed on being touched; fetid
breath; a disagreeable putrid taste; desire for
fresh vegetables, and acids; the blood is black,
likely, and dissolved, with a great abundance
of serum; pulse soft and weak. As the
disease advances, other symptoms, which
mark the

Second stage, occur, viz: Stiffness of the joints;
indurations in the muscles; pains in the
thighs, back, loins, and particularly in the knees; oppressed respiration; colic pains; sub-cutaneous extravasations of blood; ulcers,—particularly on the calves of the legs, and thighs, with edematous, flabby, and bloody edges, discharging dissolved blood and ichor; muddy and high coloured urine; passive hemorrhages from the gums, nose, rectum, bladder, &c.; sloughing of the gums, the teeth becoming loose in their sockets; re-opening of old and cicatrized sores; brittleness of the bones; syncope on the slightest motion.

In the third stage, there is extreme debility; frequent syncope; great oppression of breathing; a cadaverous exhalation from the body; sometimes palsy of one or more extremities; emaciation; occasionally, dropsy, jaundice, and finally extreme exhaustion, with an irritated pulse.

Causes. Persons of a debilitated, and phlegmatic habit of body, with a disposition to obesity, are most subject to the disease. The occasional causes are: innutritious diet, conjoined with fatiguing labour, and exposure to a damp and impure air; excessive and repeated hemorrhages; impure diet; anxiety of mind, with a sedentary mode of life; the habitual and intemperate use of spirituous liquor; the continued use of either exclusive vegetable, or much salt animal diet. A damp and impure air, is a powerful co-operative cause with a vitiated, or exclusive salt animal food, &c.

Proximate cause. A morbid process of sanguification, and a consequent morbid condition of the blood.

Treatment. The first and most important
part of the treatment, is the removal of the causes which have produced the disease. When it is the result of impure diet, and a vitiated and damp air, more wholesome food and air, are necessary. When exclusive salt animal food is its cause, vegetable acids, and a vegetable diet, are the appropriate remedies. If an exclusive vegetable, or farinaceous diet, has given rise to it, animal food, with moderate exercise in the open air, is to be prescribed. All sorts of fermented liquors; acid fruits; alkalescent plants; pure fresh water; cleanliness; free ventilation; are re- mediate in this disease. The vegetables which have been found most beneficial, are: scurvy-grass; garlic; water-cress; garden-cress; the fruit of the cloud-berry; (Chamæ- morus;) cabbage, in the form of sour-krout; cochlearia, &c.

SCROFULA.

Scrofula may be divided into two periods, or states—the one, that peculiar diathesis, called the scrofulous habit; the other, the disease in its state of development and activity. The scrofulous habit, or predisposition, may be acquired from accidental causes, or from hereditary transmission. The scrofulous habit, is characterized by the following circum- stances; a particular delicacy, and langour of countenance; smooth, soft, and flaccid cheeks; a dull lead-coloured circle around the mouth, with fine red lips; swollen upper lip; inflammation of the edges of the eye- lids—particularly in children; weak digestiv e powers; scabby eruptions about the head; irregular state of the alvine discharges; slow growth of the body; aptitude to take
cold, &c. This dormant state of the disease, may continue for years, or pass off, under favourable circumstances. More generally, however, it becomes gradually developed, under the influence of various exciting causes; the lymphatic glands along the neck, and other parts, become enlarged; and by degrees pass into a state of slow inflammation, terminating in induration, or suppuration—the ulcers thus formed, discharge a thin, milky, and somewhat viscid fluid,—are but little painful, and exceedingly slow in cicatrizing. The cicatrices are uneven, and irregular; the eyelids and conjunctiva, become inflamed, as well as the mucous membrane of the nose, and bronchia. In a more advanced state of the disease, the salivary and thyroid glands, and the pancreas, and other glandular parts, enlarge; eruptions appear on the skin; emaciation ensues; the extremities of the long bones enlarge; ulcerations occur, particularly in the cartilaginous and glandular structures; some of the bones become carious; the large joints inflame and suppurate; the spine becomes diseased; the nose, and palate, are destroyed by ulceration; in short, there is scarcely any part of the body, which is not sometimes the seat of its frightful ravages. The most common course of scrofula, however, is the formation of tubercles in the lungs, and consequent phthisis pulmonalis.

Scrofula occurs more frequently in children, than in adults. The scrofulous habit is rarely formed after the period of manhood. The most common causes which produce this morbid habit, are: cold and atmospheric vicissitudes; indigestible and unwholesome
food; excessive indulgence in eating; confinement and want of exercise; long exposure to a humid atmosphere; mental disquietude; chronic irritation in the stomach and bowels, from worms and other causes; exposure to cold and humidity, during convalescence from various diseases, particularly measles, scarlatina, whooping cough; in short, whatever permanently debilitates the system, more especially during childhood.

Proximate cause. The scrofulous habit, consists probably in constitutional, or acquired excess of irritability in the lymphatic system, in connexion with a weak condition of the assimilative powers.

Treatment. To counteract the scrofulous habit, constant care is required, to avoid the exciting causes. The integrity of the digestive, perspiratory, and hepatic functions, is to be maintained, and the tone of system supported. This is to be done, by the occasional use of mild aperients; alterative doses of mercury; warm clothing; mild vegetable tonics; exercise in the open air; a simple, but nutritious diet; sea-bathing; the tepid shower-bath; dry frictions; alkalines, when gastric acidity prevails. When the disease is established, the same course of treatment is required, with additional remedies, varied according to existing circumstances. When the disease exists in the state of lymphatic glandular tumours, iodine, bathing with salt water, leeching, and emollient poultices, are often beneficial. In this state, advantage may also be occasionally derived from the extracts of conium maculatum, dulcamara, hyoscyamus, belladonna, and minute portions of muriate of mercury. In general, however,
irritating applications are improper, so long as the tumours remain indolent. When scrofulous ulcerations exist, benefit may be derived from liquor potassæ; the narcotic extracts just mentioned; the muriates of mercury, gold, barytes, lime; from tussilago safara; sarsaparilla; arctium lappa. I have seen more good done, by minute doses of muriate of mercury, and large ones of extract of conium, than by any other remedies. Farr speaks in the highest terms of the efficacy of large doses of the liquor potassæ, and mercurial frictions, used conjointly.

CHAPTER XX.

MENTAL DISEASES.

The diseases of the mind may be divided into four classes, viz: mania, monomania, dementia, idiotism.

1. Mania. General derangement of the mind, characterized by a rapid succession of incoherent ideas—delirium; violent excitement of the passions, expressed by great agitation; cries, singing, menaces, and fury.

2. Monomania. Partial insanity—the patient being insane on one particular subject only. This class comprehends a great many varieties, as, nostalgia, fanaticism, hypochondriasis, misanthropy, &c.

3. Dementia. Imbecility of mind—the reasoning faculties being defective, and memory weak or obliterated. It occurs in very old
people; and after diseases of the brain, as, apoplexy, epilepsy, &c.

4. *Idiots*. Defective intellectual development, amounting sometimes to a total absence of mind; and, in some instances, even to a destitution of the instinct, which leads to the gratification of the animal appetites.

**General symptoms.** Sensibility impaired; appetite depraved, null, or voracious; constipation; fever in mania, and in the beginning of monomania; skin dry, and of a yellowish brown colour; in women, suppressed or irregular menstruation.

**Causes.** Hereditary predisposition, has an important share in the etiology of mental diseases. Mental derangement, from hereditary predisposition, is generally announced "by whimsicalities of disposition; certain singularities of character; caprice in taste and habits; peculiar and evilly intentioned conduct; little aptitude to the study of the exact sciences; and in immethodical taste for the arts of display, and the pleasures of imagination."

Among the most common occasional causes of insanity, are: violent passions; intense application to one object; jealousy; excessive joy, sorrow, hatred, terror, or surprise; religious enthusiasm; unrestrained imagination; poverty; excessive ill treatment; disappointed love, ambition, vanity; mortified pride; chagrin; the crisis of female life, suppression of habitual discharges; repercussion of chronic cutaneous affections; drunkenness; parturition; pregnancy; epilepsy; blows or falls on the head; acute and chronic diseases.

**Development, Progress, and Termination of Insanity.** The development of insanity, in its
MENTAL DISEASES.

incipient stage, is generally marked by a change in the habits, tastes, attachments, and passions of the patient. As the mental disorder advances, vigilance, head-ache, loquacity, or taciturnity; inconsistency in conduct; wild and ruinous enterprises; a neglect of the ordinary occupations; unusual prodigality; inconsistent conduct; incoherence of ideas; and, finally, fixed monomanic hallucination, delirium, or general aberration of the perceptive and reasoning faculties.

Insanity is sometimes periodical—at others, it is temporary—passing off either spontaneously, or in consequence of remediate treatment; sometimes, it assumes a fixed and incurable state. Chronic, or incurable mania, or manomania, frequently terminates in dementia. (Georget.) Idiotism is always incurable. Dementia is usually preceded or followed by paralysis.

Prognosis. Recovery occurs most frequently between the ages of twenty and thirty. It seldom terminates favourably, after the fiftieth year of age. When insanity is connected with paralysis, or epilepsy, it may be regarded as incurable. A recovery of the general health of the system, without a corresponding melioration of the mental hallucination, is an unfavourable sign. It has been observed, that cold is more favourable to recovery, than warm weather.

Pathology of Insanity. Many pathologists contend, that the mind is never deranged idio-pathically; but always in consequence of some physical disorder, whether functional or organic, of the animal system. To this opinion, I am myself inclined to give my assent. This subject is fully discussed in the lectures.
MENTAL DISEASES.

TREATMENT. The treatment is divided into **moral** and **remedial** management. Under the head of moral treatment, are: a soothing, mild, and conciliatory management; the absence of all coercive measures, unless imperiously demanded by the violence of the maniacal fury, or attempts to injure themselves or others; a separation of the patient from all objects calculated to recall the sentiments, or passions, which gave rise to the disease; a judicious diversion of the mind, from the objects upon which the thoughts are habitually directed, and an encouragement to reflection "upon subjects of personal conduct and thought." To restrain and subdue the turbulent, it is often sufficient to envelope the head suddenly with a cloth, so as to prevent them from seeing. The most furious generally become calm, so soon as they are thus prevented from seeing. The false ideas and fancies of insane persons, should never be encouraged, nor vehemently contradicted. By watching favourable opportunities, circumstances will generally occur, which, by a few judicious remarks, may lead them to doubt of the correctness of their notions; "and doubt of the correctness of their own perceptions, marks the period for persuasion and conviction of error."

Convalescents from insanity, should be suffered to associate freely with each other; nothing, says Georget, promotes recovery more than such an intercourse. Mechanical employments are often of great benefit, in the management of lunatics.

Remedial management. The remedies most efficacious, are: blood-letting, where there is much arterial excitement; purging; blisters;
VERMINOUS DISEASES.

Various opinions concerning the origin and formation of worms, in the intestinal canal. It does not appear, that they are received from without, because they are never found out of the animal body; and when removed out of the body, they speedily die; and, lastly, earth worms, and such as live in water, do not change their forms, when received into the intestinal canal. There are five varieties of intestinal worms.

1. *Tricocephalus dispar.* These worms are from an inch and a half, to two inches in length. About two-thirds of their length, is almost as thin as a horse hair, the remaining and posterior part, being considerably thicker, and terminating in a rounded extremity. They are found principally in the cæcum. They are seldom numerous.

2. *Ascaris vermicularis,* (oxyuris vermicularis.) These are exceedingly short—not more than two lines in length, very thin and white. Their usual seat is in the rectum.

3. *Ascaris lumbricoides.* These worms are from two or three, to ten or twelve inches in length, round, of yellowish-white or brownish-red colour, of nearly a uniform thickness, except at the extremities, which taper to a blunt point. They are from two to three lines in thickness. They inhabit the small intestines chiefly; but occasionally ascend into the stomach.

4. *Taenia lata,* (hohtricocephalus latus.) This
worm often acquires a very great length—from twenty to thirty feet and more; it is from four to ten lines in breadth, flat, and white, resembling a piece of white tape, and composed of a series of concatenated joints. It inhabits the upper portions of the bowels and the stomach. The head is armed with two processes, by which the worm attaches itself to the intestines.

5. *Tænia solium* (T. Cucurbitina.) This worm is rarely, if ever, voided whole; it generally passes off in short joints, resembling, in some measure, the seeds of gourd. Pieces, however, upwards of twenty feet, of this worm, have been voided. The head is small, and furnished with four small apertures. (Oscula.) It inhabits the small intestines chiefly.

**Symptoms.** Countenance pale, lead-coloured, with occasional transient flushes; eyes dull; pupils dilated, with a bluish semicircle around the lower eyelids; tickling in the nose; tumid upper lip; occasional head-ache, and humming in the ears; copious secretion of saliva; tongue slimy or furred; breath foul; variable appetite—being sometimes voracious—at others wholly gone; transient pains in the stomach; occasional nausea and vomiting; pains in the abdomen—particularly about the umbilical region; frequent slimy stools, or costiveness; urine turbid, yellowish, or milky; abdomen tumid and hard, with emaciation of the other parts of the body; lassitude; irritability of temper. None of these symptoms, however, are certain indications of the existence of worms in the bowels—the only certain indication being the appearance of them in the evacuations from the bowels or stomach.
The opinion which is expressed by some, that worms are harmless in the intestinal canal, is without foundation. It is nevertheless probable, that that peculiar condition of the alimentary canal, which favours the production of worms, is more frequently the cause of mischief, than the worms themselves. Worms give rise to a variety of affections, such as chorea, epilepsy; hydrocephalus; emaciation; convulsions; paralysis, and a vast variety of anomalous disorders.

Treatment. In prescribing for the removal or destruction of worms, it is of some consequence to confine the patient to a spare and liquid diet, and to exhibit two or three mild cathartics a few days previous to the exhibition of the proper anthelmintic remedies. With these preparatory measures, the ordinary vermifuge remedies will disappoint us much more seldom, than without them. My own plan of treatment for the expulsion of the lumbricoides, is to put the patient on a liquid diet, and to give a small dose of Epsom salts every morning, for three days in succession. On the fourth morning, I order a decoction of the root of spigelia, in the proportion of an ounce of the root to one pint of water, and boiled down to half a pint. This being sweetened, is to be drunk in the course of three or four hours; and immediately after the whole of the decoction is taken, an active dose of calomel and jalap—or what is perhaps still better, castor oil and turpentine, is to be taken. I have rarely failed, by this method, of removing worms, where they existed. The most efficacious anthelmintics, for the destruction of the ascarides lumbricoides, besides spigelia, which I regard as decidedly the best, are: sem. san-
tonici; chenepodium anthelminticum, doli-
chos pruriens; calomel, garlic, conserva hel-
minthocordon, and geoffrea surinamensis.

The removal of *ascarides*, is often exceed­
ingly difficult. Remedies applied in the form
of enemata, are generally more efficacious,
than when given by the mouth. My usual
prescription for the expulsion of these worms,
is to exhibit three or four aloetic purges
every second day, together with two or three
enemata, composed of a solution of common
salt daily. Injections of a solution of aloes—
of lime water, or of infusions of any of the
ordinary anthelmintics, will occasionally bring
away these troublesome little worms. I have,
in a few instances, brought them away in
great quantities, by injections composed of
spirits of turpentine, mixed with milk. The
introduction of a bougie, smeared over with
mercurial ointment, has been employed effec­
tually against these worms. Nils Rosen
speaks very favourably of injections com­
posed of a drachm of refined sugar dissolved
in warm milk.

For the expulsion of the tape-worm, a
great variety of remedies and modes of
treatment have been recommended. The
anthelmintics that have been found most effi­
cacious against this species of intestinal
worm, are: polypodium filix mas; spirit of
turpentine; tin; valerian; and the bark of
the pomegranate root. The latter article has
been particularly recommended of late years,
as a powerful vermifuge against the tape­
worm. Whatever mode of treatment be adopt­
ed, it is always of much consequence to pre­
pare the patient, by diet and laxatives, before
the proper vermifuges are given. A spare and
liquid diet, with the daily use of small doses
of saline purgatives, for five or six days, will greatly increase the chance of procuring the expulsion of the worm, by the use of anthelmintics. The following is the substance of some of the most celebrated methods of treatment recommended for the removal of this worm.

Alston’s method. An active purge; next morning, one ounce of pure tin filings; on the second, third, and fourth mornings, half an ounce of the same metal, followed, on the fifth morning, by an active purge. Dessault’s method: mercurial frictions on the abdomen, followed by a drastic mercurial purge. Herrenschwand’s method: one drachm of powdered male fern root, mornings and evenings, on an empty stomach, for two days in succession; on the morning of the third day, take the following: R. G. Gambog. gr. xij. Subcarbonate potass. gr. xxx. Sapon Venet. gr. ij. Misce. Three hours after taking this, an ounce of ol. ricini. is to be taken. Hufeland’s method: a cup of a decoction of garlic in milk, every morning, on an empty stomach, with a table-spoonful of castor oil every morning, noon, and evening, half an ounce of the filings of tin, once daily, and frictions with petroleum, on the abdomen. This must be continued for several weeks.

Spirits of Turpentine, has been employed with much success, for the expulsion of tænia. From two to three ounces of this article, should be given at once; and followed, in two hours, by a dose of castor oil. The bark of the pomegranate root, has been recently strongly recommended, for the removal of tænia.

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