Lectures on Surgery by Wm. Gibson, M.D.

University of Pennsylvania
Course 1822-23

Ignatius P. Carvin
Philadelphia

Philadelphia
Jan. 3, 1823

Fracture
Cubitalis

Ignatius P. Carvin
Philadelphia
Jan. 5th, 1823

fracture
Cubitalis

Dr. Gibson's Lectures

Dr. William Gibson's Lectures 1822-3
taken by John Emerson & copied
by Ignatius P. Carvin
John Emerson, M.D.

Ignatius Pottizing Carvin Philadelphia

July 3, 1823

Dr. William Gibson's Lectures

The lectures on Luxation, Amputations, &c,
are not taken down. I.P.E. June 4th 1823

Core Monday, Tuesday, Thursday & Friday from 9 till 10

Gibson, M.D.

Chapman, every day

Hare, every day

Physick, every day

James, Monday, Tuesday, Thursday, Friday

1 till 2

11 till 12

12 till 1

3 till 4
Ribox on Inflammation

By inflammation is understood the state of a
part which is painful, redder, hotter and more turgid
than it naturally is, which typical symptoms when
present to any considerable degree or when they
affect very sensible parts are attended with fierce
a general diseased action of the system. The
susceptibility of the body for inflammation is of
two kinds; the one original; beyond the reach
of human investigation, the other acquired
from the influence of Climate, habits of life,
state of the mind over the constitution. The
first kind being innate cannot be diminished
by art; the second may be relieved by avoiding
the particular causes upon which it depends.
Inflammations are divided into Healthy and
Unhealthy into Acute & Chronic; he considers
Inflammation a diseased action and for that
reason does not believe in healthy inflammations.
The nearer inflammation is situated to the heart
the more favorable will it terminate. There
are exceptions to this rule as when inflammation

attacks parts subservient to life as the Lungs, Brain, Stomach & the stronger the constitution the more favorable will it terminate. Inflammation may terminate in eight different ways viz. by resolution, Abduction, Suppuration, Exhoration, Evisceration, Ulceration, Granulation & Mortification. Inflammation when seated in highly vascular or organised parts is more disposed to take a prosperous course, is more governable by art than in parts of an opposite texture; hence inflammation in the Skin, Cellular Substance, Muscles & often ends more favorably than in bone, tendon, fascia or ligament. It is more manageable by surgery for those parts of the body which are not what the Anatomists call vascular seem to enjoy only inferior powers of life & when excited to inflammation most commonly end in mortification. The proximate cause of inflammation is thought to be an increased action of the vessels of the part the remote causes are divided into Chemical and Mechanical. Under the first head are Burns, Scalds, Lanthanides & under the 2nd are included wounds.
brises V:all kinds of external violence. The pain is
attributed
inflammation to the spasm of unnatural situations
of the nerve, the same action to the extravasation of
Serum & coagulable lymph & to the dilatation of the vessels
of the part. The heat never transcends the heat of the
Animal at the source of circulation. Healthy Inflam.
is always, with me a man of the following effects
& adherence of the inflamed parts one to another, the
formation of pus, the union of a portion of the body
by absorption. The uniform occurrence of these
effects induced Mr. Hunter to describe Inflammation
in 3 different stages, the Adhesive, Suppurative &
Ulcerative stages. The various parts of the body differ
in their susceptibility of adhesion, Suppurative and
Ulceration. Cellular membranes, the circumvallated
spaces in the abdomen, Throat, Urethra, Vagina, are
very readily from adhesion. Mucous membranes are
the contrary, as the mouth, nose, alimentary canal,
the air cells of the lungs & trachea, the Urethra & seldom
adhere but Suppurate readily. It is generally found
that deep seated parts Suppurate less readily than the
superficial. This if a Musket ball be lodged at
any considerable depth in the body it excites adhesive
inflammation & a cyst forms round the bullet. But
if it be lodged near the surface it produces suppuration
an Abscess forms and it is discharged. The symptoms
of Inflammation which have been described exist
very evidently in the adhesive stage, but when
suppuration is about to commence they are greatly
aggravated. the pain & throbbing become more
violent, the heat is increased, the swelling more
prominent the color more intense approaching
to a pale scarlet. Shivering fits come on, the
swelling grows softer & matter is formed. Excitation
may be perceived by examination with the finger
an immediate abatement of the symptoms now
takes place. If the inflammation be seated in the
cellular membrane the process of ulceration
now commences & the Absorbents remove the
solid part to make room for the lodgment of
the pus secreted & also to prepare a way for its escape
in this manner an abscess is formed which
may be defined a circumscribed cavity containing
pus. In the common rheumonous abscess we
have a good example of the 3 effects of inflammation which have been briefly noticed at its onset. When the inflammation is least violent, the inflamed vesicles secrete coagulable lymph which agglutinates firmly unless thecells of the cellular tunic encircle the cavity & preventing the escape of pus into the surrounding parts. Towards the centre of the abscess inflammation has transcended the adhesive stage & the bloodvessels have relieved themselves by a secretion of pus. The most common form in which inflammation terminates is resolution. In this case all the symptoms gradually subside & the parts are restored to colour & appearance. The secretion of pus already noticed is to be considered as one of the termination of inflammation also a secretion of serum frequently put a stop to the inflammatory process, the inflammation of Panthroid TERMINATES in this way. Instances of this are also seen in inflammation of the Brain ending in Hydrocephalus in the throat terminating in Hydrothorax. Hemorrhage has occurred in some cases I put a stop to the inflammation. Hard tumours occasionally form by the secretion of
Evacuable lymph in the intestines of parts & this has been called a termination of inflammation in Schirius. In other instances the violence of action or the kind of action exhausts the vital powers of the inflamed parts & the inflammation terminates in Mortification.

TREATMENT OF INFLAMMATION

In the treatment of inflammation the first object is to remove if possible the immediate cause if this continue to act the next is to check the inflammatory action. The remedies to effect this latter are General or Constitutional and Local. Those which act on the Constitution are Bloodletting, this is a powerful remedy in the treatment of Inflammation. The quantity of blood to be drawn & the frequency of its repetition can only be estimated on the violence of the inflammatory symptoms. Whenever parts essential to life are inflamed as the Brain, the contents of the Thorax & Abdomen are heated and vigorous bloodletting is necessary. The diet tends to diminish the bulkness of the vessels to lessen irritation & should be strictly observed.
Purging is often necessary in the treatment of inflammation but is often inconvenient as in fractured bones bloodletting must therefore be substituted. Certain neutral salts as the Sulphates Soda, Sulphate Magnesiae Vitri, Potassae are useful when combined with the Tartar's Antimonious in which case they occasion nausea diminish the action of the bloodvessels. Rest is essential. In motion occasions irritation. Many inflammations are found difficult of cure because the inflamed parts cannot be kept at rest. Fistula in Apo offers an illustration of this remark.

Position. The posture of the body should be such as to favor the return of blood from the inflamed parts. This is found to be very beneficial as the elevation of the feet in cases of inflammation of the lower extremities is found very successful. Vizin may be given to relieve pain in some cases. The local remedies are bleeding from the inflamed parts by cupping, leeches, and by scarification. Local bloodletting has been found more effective after general bleeding has been permitted. Cold applications are
sometimes serviceable but they should only be carried so far as to be pleasant to the feelings of the patient.

A very common application is the Cerulphæic Tincture in solution in cold water with the addition of a little vinegar to reduce the temperature of the inflamed parts. Or about 2 oz. of Sugar of Lead in 3 oz. of water. Blisters, in certain cases, are of great use in diminishing inflammation. They must be applied directly over the inflamed part and in many cases produce a speedy cure. These are the remedies employed in bringing about a termination of the inflammation by resolution which sometimes cannot be obtained and Suppurative Cures on

On the Suppurative Termination

When inflammation continues any length of time with violence without resolution a Adhesion we may expect that supphration is about to take place. The inflamed part becomes soft, the pain is also very severe with a throbbing sensation, the abscess becomes conical and more pointed. Even when the
Inflammation is not very great, rigor takes place; the coldness is according to the extent of the inflammation. Rigor sometimes takes place in the suppuration of wounds. The cause of rigor is not well known. The time of the disease at which suppuration takes place is variable, being dependent on the degree of the inflammation. In some cases it lasts only a few days, in others, several years. The cellular substance is the most common seat of inflammation of the supplicative kind. Adhesion takes place to prevent the spreading of the pus through these parts. Pus is never produced except there is an ulceration of inflammation. It is said that pus consists of small globular bodies frequently mixed with the globules of the red blood. Pus has a greater tendency to putrefaction than any other fluid, especially when mixed with blood. When first discharged from a sore, it is innocuous but on exposure to the air a short time, it becomes putrid. Pus when first discharged possesses neither Acid nor Alkaline properties.
but on exposure to air it becomes so acid as to
change vegetable blus to a Red. Leder is a thin, acid
watery discharge. Lanie is a poetia liquer mixed with
some of the blood. Stains of a gry colour and
very offensive odour. Salt Ammonia coagulates
pus but not mucus. It was the opinion of J. W.
Hunter others that pus was secreted from the
arteries that a glandular structure was not
necessary for its formation. If there is no chance
of producing Resolution adhesive we must then
encourage suppuration. The means of doing
this are of two kinds Constitutional and Local
When the patient is much debilitated from the
preceding evacuations we must give him
animal form. Wine, Tonic medicines will also
be found serviceable, also Opium to allay the
pain. The local applications are Fomentations
and Poultices. the poultices may be made of
bread and milk with the addition of a small
quantity of Olive Oil or hogs lard to prevent their
sticking to the parts. As their good effects depend
upon their heat and moisture, they should be
renewed when they become dry or cold. If the inflammation is languid their heat should be increased & vice versa. In wounds which are disposed to suppurate the Linseed poultice is the best application. If the Suppuration is to profuse it must be moderated by the removal of the poultice & other applications. In all extensive suppurations Hectic fever is apt to make its appearance. It is occasioned by constitutional sympathy with local irritation.

Of Gangrene & Mortification

By mortification is meant the entire death of a part of the body. Gangrene is that condition which immediately precedes it. Mortification is of 2 kinds the one is not preceded by inflammation; the other is increased action, diminution of power is the cause of mortification preceded by inflammation. When any part of the body loses all motion, heat, sensibility & becomes of a brown livid, a black colour it is said to be affected with Putreclus as long as heat, sensibility & motion remain it is said to be affected
with Gangrene. Gangrene does not always termi-
nate in Sphaecelus nor is Sphaecelus always
termination preceded by Gangrene. The primary
cause of spontaneous mortification is not well
understood, some attributing it to putrefaction
of the fluids. Bread made of bad black wheat a
kype is sometimes thought to be the cause. The
external causes of Mortification are Chemical or
Mechanical. Under the first head one heat and
cold, under the second are wounds, bruises &
and of all inflammations none is more apt to
 terminate in Mortification than Erysipelas
especially if combined with Phlegmonous
inflammation. If a part of the body has been
exposed to cold or heat is suddenly applied, it will be
found invariably to mortify. In some cases
Mortification has been brought on by mere
debility. This last kind is not preceded by
Inflammation. Continued pressure on a part
of the body occasions mortification. This is even in
the case 1 of patients who have been long
confined to one posture in bed as in cases of
The Symptoms of Mortification are as follows: If pain & inflammation are preceded by inflammation, the pain & fever suddenly diminish, the parts affected become soft & of a livid colour, retaining a small share of its warmth. Sensibility the cuticle becomes detached & vesicles arise on the surface filled with a turbid fluid. This is the state to which the term Gangrene has been applied. Mortification is divided into humid & dry. Dry Gangrene is never preceded by inflammation but is most commonly by the flow of blood being stopped by compression of some kind. It sometimes comes on without any evident cause as that kind described as that kind described by Al; Pott. It sometimes spreads with great rapidity or other times very slowly. It is as fatal as that proceeded by inflammation. The danger is never over until the dead parts separate from the living. The external parts as the cellular membrane may become phænocicled without the parts underneath as the Muscles & Tendons sharing in the disease. In all cases of Mortification the patient must be considered in
imminent danger, even after the separation of the
dead ballot from the living has taken place, as patients
have been known to die suddenly in consequence of the
Adoption of putrid matter operating on the
Nervous System

Treatment of Mortification

It may be divided into constitutional & Local remedies.
Under the first is comprehended remedies which
are indicated by the state of the System. If there is
great excitement present with a strong, full and
hard pulse, bleeding will be necessary, also purging
low diet. In all cases their effects must be watched.

Symptoms of great prostration are apt to follow
in that kind of mortification succeeded by erysipela-
tous inflammation. Emetics will be found
useful, but if they should operate on the bowel
& cause symptoms of debility, they must be
immediately kept off. Resource should be had to
tonic & antiseptic remedies. The first that offers
itself to the consideration of the Practitioner is a
generous diet with a moderate quantity of wine,
also the Peruvian bark. The volatile alkaloids
has been found of great service. The Barks is sometimes of very little use especially in that kind brought on by external causes I also that kind described by Mr Pott. In mortification accompanied with Typhoic symptoms it will be found of great utility also the Volatile Alkali, wine & opium together with the topical application of Blisters. In mortification commencing in the toes attended with great pain & irritation large doses of Opium have been recommended. Dr Gibson relates the case of a woman who had been under his care some time ago in the Alms House who used to take upwards of 600 drops of Laudanum in 24 hours. She lived about 12 months & finally died. Sometimes before her death she removed several of the sores by means of a pair of forceps. This patient would not submit to amputation. He also relates the case of a gentleman from York County Pa who was affected with the dry gangrene. It progressed very slowly at length a line of separation was found between the dead & the living parts. The diseased parts were amputated & the patient got quite well.
As a tonic remedy the Sulphuric Acid has been found useful, Carbonic Gas. Camphor has been recommended in all cases of Mortification. Primary with or without pleased must be given to allay pain.

The local remedies are the removal of all ligation tumors, poisonous substances. In Mortification proceeding by inflammation the application of a solution of Sugar of lead in water with the addition of Vinegar also fermentation. Powders is useful. The Charcoal poultice has been found very serviceable. It is made by stirring up 3/4 of this substance in Powder with a pound of the Flaxseed poultice. It will be found of great service in covering the Trotar. Blisters have also been found useful.

In parts which threaten mortification from intense cold the part should be placed twice in cold water or Snow, till the heat gradually increase. In all cases of Mortification, disputation should not be performed until the disease has shifted progressing. Or else of Separation has formed between the living & dead parts.
On Ulcers

Ulcers mean a Solution of Continuity in a part attended with a secretion of Putrid or thick discharge. They are divided in the following manner, Healthy, Unhealthy, & Specific.

When Ulcers take place in Gouty habits & the regular purgation of food leaves the person, in such persons the healing of the ulcer is improper. The lower classes of people suffer most such as Labors & Sailors.

Simple or Healthy Ulcers are most commonly brought on by wounds which do not heal by the first intention. In Healthy Ulcers the granulations are small, smooth & pointed at the top. The pus is of a white color. When the granulations have risen to a level with the sound parts they put on a disposition to form (a cicatrix) cuticle.

Treatment of Healthy Ulcers. If constitutional symptoms are present, constitutional must be treated too. The local applications must be of the mildest kind, such as a little lint spread with calamine tincture. He also recommends prepare by composing laid on each side of the ulcer & bandage also adhesive straps. Applications in
The form of vapour should not be employed as they under the texture of the granulations would diminish the tendency to form skin. The articles employed should be free from rancidity. Powdered Calamint & Rhubarb may be employed. _Irritable Ulcers_

The appearance of _Irritable Ulcers_ are, ragged edges, pale granulations of a whiteish hue discharging a thin secretion & excessive pain. If a fungus arises it bleeds on being touched. The _Treatment_ divides itself into constitutional & Local. Gibson recommends moderate fuming after which wine, & other stimulants & tonics must be given. The local remedies are the _Fomentations & Poultices, Common Grate_. When the granulations become large the poultices may be kept off & the Carrat Poultices substituted. While the granulations are small the Ulcer diminishing they may be continued. When the weight of the poultice cannot be borne the following may be employed

Wine Quin  
_Or_, applications such as Carbone powdered 
Liquor Fumi  
Rubra, _Lapis Calaminarius_, Putr Rhoei  
Pet. Sae Saturni.  

Preparations must be avoided. When the _cutaneous_ poultices disagree it should be smeared
with cream. **Languid Ulcers**

The granulations of Languid ulcers are larger and rounder, of a less compact texture than those of a Healthy Ulcer. Large insubstantial masses appear raised above the surface and are often suddenly absorbed. The lower extremities are more prone to ulcers than of this kind than any other part of the body. **Treatment**

Bark & Iron must be given, wine & cordial is necessary. Porter may be given to the poor elapses as it is better adapted to their circumstances. The topical applications must be of the stimulant kind as Basilicon, Lids of Vine, T. Myrtha, they should be applied cold. Solutions of Nitrate of Quicksilver, Mercury, Acid, Irish Tincture, Decoction of Bark. Dry applications such as Chalk, Bark, Lapis Calaminaris, Carbon, Pulv. Helioc. which is strongly recommended, also Dry lint.

**Indolent Ulcers**  The appearance of Ulcers as follows. the granulations are smooth & flat. The edges of the surrounding skin are thick, smooth, prominent & rounded. The discharge is thin and watery consisting of a mixture of pus & coagulable lymph. **Treatment.** Poultices of and Fomentation
The application of warm Vinegar, Ang. Nitricum, &
St. Myrrh. Diluted Vitriolic Acid, Cayenne pepper, &c. &c.
Acid diluted in proportion as one to 10 of water.
Lime Juice, Solution of Muriate of Mercury,
Zinci Lulph. & common Salt. Adhesive Straps &
Bandages are particularly recommended.

On Burns & Scalds

Burns are among the most dangerous & common
accidents to which we are exposed. They are divided
into those which affect the superficial & those which
affect the deep seated parts. The larger the surface
even though it be superficial, the more dangerous
is the effect in the human subject. The Skin &
Lungs are both destined to separate from the
circulation & aqueous exhalation. Perhaps it is
on account of those participating in the same
function, that extensive burns seem to affect
the organs of Respiration. Certain it is that burnt
patients often die with Asthmatic Symptoms
Whether we refer the fact to what I have just stated
or to an inexplicable Sympathy between the lung &
the skin is of no very material importance.
In all extensive burns adhesions are very apt to form especially between the toes & fingers. **Treatment**

When the surface is not very extensive the constitutional symptoms as tremors or difficult breathing are present if the cuticle not destroyed the application of Cold water or other Cold substances as scraped potatoes will be found useful. They will often prevent the formation of vesicles on the other hand should the patient be seized with Rigor or difficult breathing his pulse small & scarcely perceptible & the patient lying in a Comatose condition in such cases all cold applications will be highly improper. We must in such a state of things endeavor to excite the reaction of the system by the administration of Eclatants internally I also by stimulating local applications as warm St.-Turpentine, warm Vinegar, warm Brandy. Small doses of Opium will be found serviceable in relieving the Comatose state which extensive burns are generally attended with if reaction takes place it is excessive, Bleeding Sponging & Diaphoretics should be employed in applying the stimulating local applications
case should be taken that they do not get in
contact with any of the sound part of the cuticle.
If vesications should form they may be opened
with a fine cylinic needle & afterwards dressed
with Basilicon ointment to which a little Eu-
Turpentine may be added. If a hard eschar or scale
should form, a poultice may be employed after
which it may be dressed with the Basilicon on thin
old Linen. The ulcers left by burns have some
peculiarities. They shoot out fungous granulations
which do not readily cicatrize when the ulcers
do heal they contract so much as in many cases to
occasion great distortion. To arrest the progress of the
growth of fungous prepared Chalk should be sprinkled
over the sore. If this is not sufficiently powerful
Burnt Alum or the common escharotic preparations
may be used. In Burns of the inferior extremities
extension should be constantly kept up and in the
Superior extremities flexion. In Burns & Scalds
of the hands care must be taken to prevent the
fingers from adhering by applying between them
linen dipped in a mixture of common Linseed Oil and
Lime water. Afterwards a splint made in the form of the
hand with excavations for the fingers. The toe may be
be treated in the same way with the exception of the splints. If they
should adhere we must cautiously dissect them to prevent
their reunion by proper dressings. If burns should become
indolent ulcers they may be treated in the way such ulcers
usually are by the application of Ipecacuanha. Adhesive
strips &c. In simple burns raw cotton has been found
serviceable. If vesications are formed before the application of
the cotton; it will be found to absorb the contained fluid. If
the vesications are not formed it will often be found to
prevent it from forming. In all burns if the surface
be large, the patient seized with rigors, the breathing
difficult; the pulse small & scarcely perceptible.
& the patient lying in a Comatose state without
complaining of pain, in such cases very few will
be found to recover. Gibson says he has never seen
an instance of recovery from such a state. He
relates the case of a girl 15 years of age who was
admitted into the almshouse sometime ago.
She was affected in the way above mentioned. All
Kinds of Stimulants were employed without
Effect. Reaction could not be excited and she died on the third day after being admitted.

**On Wounds**

A wound is a recent solution of continuity in a part. Wounds are divided into the following manner: Incised, Punctured, Contused, Lacerated, Poisoned, and Gunshot. The degree of danger attending wounds depends on the following circumstances: the extent of the injury, the violence the parts have suffered, the nature of the bloodvessels & nerves which happen to be cut or torn, the nature of the wounded part in respect to its power of healing, the sympathy of other parts necessary to the operations of life with the injured parts, the age of the patient & the goodness or badness of his constitution.

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**On Incised Wounds**

They are less dangerous than any other kind of wounds. When the fibres are divided without laceration a contusion the less danger there is of inflammation or suppuration. I must completely admit of excising by the first intention. A surgeon called to a recent incised wound has 3 objects to accomplish, first to put a stop to the hemorrhage, 2nd to remove extraneous substances, 3rd to approximate these parts.
the sides of the wound. In this way union by the first intention may be effected which is in almost all cases a desirable event. It is probable that the blood serves the bond of union. In some instances union by the first intention does not take place but Adhesive Inflammation is the consequence. In this case Coagulable Lymph is thrown out to form the bond of union. This is the opinion of Mr. Hunter.

In cases of Punctured wounds, when it becomes evident that union cannot be effected without Suppuration the adhesive strips must be removed and all pressure irritation by soft poultice substituted. When Suppuration is fairly established Granulations begin to form the means already recommended for retaining the sides of the wound in contact are to be resumed and cure will generally be soon effected.

On Poisoned Wounds

Poisoned wounds are those attended with an introduction of certain healthy or Morbid secretions of Animals or Vegetables capable of producing disease or death as the bite of a venomous reptile, of an animal or a wound with poisoned arrow, the sting of a bee, Wasp in Hornet, the bite of wasps, Bees, certain other insects.
In wounds of this kind medical skill alone is requisite. Cold applications, Solution of Sugar of Lead, Amber, or Vinegar. When the patient has been attacked by a swarm of these insects one head 2 faces are smeared with bleeding & swelling becomes necessary. The rattlesnake, one of the most venomous reptiles, is found in many parts of this country. Its bite is extremely dangerous. As the poison of the rattlesnake exerts its principal effect on the Sanguineous System immediate care should be taken to cut out of the circulation. Ligature should be immediately tied firmly round the limb of the bitten part expeditiously. Should the glands in the groin swell a blister may be employed or the Volatile Alkali given internally. Iodine has been recommended. Mercury is also found serviceable. Sweet oil has been recommended after the extraction of the bitten part. The lunar Causticum may be employed.

On Contused Wounds

In contused wounds besides the solution of Contiuity there is an injury of the adjacent flesh greater or less according to the violence of the force employed. Wounds made with sharp instruments are occasionally attended with excretion of the divided parts. Profuse Hemorrhage
But it is known at the same time that they are generally capable of being united by the first intention. It is almost a constant effect of contused wounds to form with very little blood even when important blood vessels have been injured. Whole limbs have been torn from the body without producing Hemorrhage. The Surgeon should not be deceived by the absence of this symptom, for he knows that in proportion as the bleeding from contused lacerated wounds is trivial, the violence done to the injured parts has been great. Treatment. The indications of cure are to prevent excessive Inflammation, to wait in the depuration of the contused parts, when Suppuration is established & granulations form, to approximate and retain in contact the edges of the wound. The best application is a bread and milk poultice. If the inflammatory symptoms run high, blood will be found necessary. If great pain and irritation come on Opiates may be given. Should Gangrene be the result a blister may be applied.

On Punctured Wounds

Punctures are not only dangerous in account of their frequently extending to a considerable depth and injuring
important bloodvessels, nerves and viscera. They are also dangerous inasmuch as they frequently give rise to very extensive inflammation, and sometimes Tetanus. It is not uncommon to see formidable collections of matter follow wounds of this description, especially when the instrument with which it has been made has penetrated to any depth into the pericranium or fascia. Stabs and all other punctures are not simple divisions of the fibers of the body. They are attended with more or less contussive or lacerating.

hence there is not the same readiness to unite which we observe in wounds made with sharp cutting instruments. When ligamentous expansions are among the injured parts both the structure of the injured parts and the nature of the wound itself often produce severe constitutional & local symptoms. Treatment In the first stage of punctured wounds the indication is to guard against the attack of violent inflammation. When a considerable quantity of blood has been lost, general & topical Bloodletting should practiced in fact the Antiphlogistic regimen is to be strictly followed. We should endeavor to produce Adhesion by the first intention by approximation of the sides of the wound with strips of Adhesive plaster and gentle compression applied along the whole course.
of the wound. A state of rest is to be observed. If the pain is very
great opium is to be given. Sometimes union of the first intention
will take place. More frequently in cases of deep stabs the pain
is intolerable & suppuration takes place. In such cases
Poultices will be proper. When convulsions or great
nervous irritation follow, the dilatation of the wound
frequently puts a stop to these symptoms. A small
incision upon a probe passed into the puncture will
suffice for this purpose. When the last mentioned wounds
occur in extremely hot weather it will be safest
to enlarge them with a scalpel & to apply stimula-
ting substances to excite inflammation. It will often
prevent Tetanus. Cresipulations in inflammation follows
punctured wounds especially of the scalp. An enlargement
of the wound has been found useful with the application
of a blister to the inflamed part. If any large bloodvessel
has been opened it must be sought for by dilating the
orifice of the wound with a probe & scalpel. The vessel being
exposed it may be tied with a ligature. In some cases
the bleeding is at first profuse & gradually ceases.
When it ceases the patient must be kept quiet
and watched carefully as a return of the hemorrhage.
is to be apprehended. If the puncture be on a limb a
Tourniquet may be applied close so that an assistant may
have it in his power to put an instant stop to the effusion
of blood, until the artery is secured by a Ligature.

On Lacerated Wounds

They are pretty much of the same nature as the Contused
Lacerated wounds more frequently unite by the First Intention.
In all lacerated wounds especially of the scalp we should
endeavor to promote Union by the First Intention
If we should not succeed no harm will result from the trial.
If it should succeed we save our patient a great deal of
trouble. If Inflammation should come in we may treat
it in the same way recommended in Contused Wounds.

On Gunshot Wounds

They are produced by hard obtuse bodies projected from
some species of Fire arms & violently penetrating the
living solids. The difference of Gunshot wound are referable
to 3 principal causes 1 the kind of body projected 2 the
velocity of the body projected 3 the nature and peculiarities of the
part injured. Bullets are the bodies which most commonly
cause these wounds but they may be produced by Cannon
balls, broken Shells & in board of a Ship by Drinkers of Wood
Pieces of cloth are often carried into the wound. At the entrance of a ball the circumference is usually depressed, in account of its getting into a denser medium, at its exit, prominent on account of getting into a rarer medium.

When the ball moves with little velocity there is less sloughing than when it penetrates with rapidity. On account of the parts surrounding a gun shot wound being deadened, the nature of the injury cannot at first be comprehended. Some viscera large artery or even a bone may be deadened by the violence, but the mischief does not manifest itself until the separation of the slough takes place. When a gunshot wound only injures soft parts of ordinary importance, it is termed simple, when at the same time it fractures a bone or wounds a large artery or nerve or viscera it is called compound. When a cannon ball tears off a whole limb it may cause a complete of the whole body in a very violent degree and a universal of the Animal Functions. Treatment. The first thing in the treatment of gunshot wounds in one of the extremities is to determine whether it is more advisable to amputate the wounded limb immediately or to undertake the cure of the wound.
When the ball lodges the wound may be removed without difficulty it ought to be removed with immediate. The course of the ball is extremely irregular. When we are not able to find it in such cases we may perceive it when it has not penetrated to any considerable depth by a red line extending from the spot where it has entered to that at which it has lodged or escaped. If the ball is lodged deep in the substance of the thigh or any other part it would be improper to dilate and cut it out, but if lodged superficially it should be cut down on and extracted. The best local application is a Poultice of Bread, Milk or Linseed to be continued until the Sloughs separate and Suppuration is established. The treatment is to be the same as any other contused wound. The state of the constitution is to be attended to. When there is reason to apprehend that an artery of any size has been injured we must attend to the separation of the sloughs as it may be followed by a fatal Hemorrhage. Bleeding seldom takes place immediately after the reception of the wound but mostly after Suppuration has taken place.
On Cancer.

This disease is divided into 2 stages viz. Schirrus & Cancers. 

by first is meant a hard indolent occurring in different parts but mostly in glandular structure, such as the breasts in women & testicles in men. There are some parts which are exempt from Cancers as the brain, liver & spleen. Schirrus most commonly begins by a small hard indolent tumor with smooth surfaces often becoming of some size. It turns a livid color something like lead continuing to enlarge it becomes painful and disturbing to the patient. The pain is of a peculiar kind as if something were darting through it. It is termed lancinating. If a section is made into the substance of the tumor it will be found hard & indolent in the centre with lines extending from the circumference towards the centre. After taking out the ulcerative process the indurated centre becomes changed into a fungous substance discharging a thin frothy sauce of a peculiar odour. Sometimes granulations shoot out with great rapidity & seem to assume a healing aspect but much oftener it assimilates the neighboring parts in its ravages with wonderful rapidity. Doubts have been entertained
of its being of a local nature in its commencement. It is of
this kind but when the glands become diseases it is doubtful
as to its locality. Gibson does not consider it as a hereditary
affection. This disease is sometimes confounded with syphilis
& Fungus Hematoles. From the first it may be distinguished
by the slowness of its formation from the last by its firmer
consistence & its not attacking parts which the latter is
disposed to do such as the muscular parts of the Thighs
legs, arms & Large joints. Treatment Cancer may be
often diminished by low diet, small bleedings & the
application of Leeches, the application of Vinegar & brown
paper also internal remedies to allay pain such as those
of the Viscous tribe as Cina, Hyosciamus, Belladonna
Opium also Arsine. The last has been given internally
& applied externally. It sometimes suppresses the growth of
Fungus very powerfully & even sometimes eradicates the
disease. It should be used in this & in all other affections
when fungus grows with great rapidity especially when
it proceeds from diseased bones. It must be used with
caution. Mercury was recommended but was not found
of much service. The best way to get rid of this disease is
by extirpation. It seems the most preferable & may be
Reserve to when the disease has not extended itself to the
lymphatic glands if it has the operation will most commonly
be found to fail also when it has formed extensive adhesions.

Extraction of Cancerous Breast

Previous to the operation the parts should be examined with
great attention in order to ascertain the extent of the disease.
If the surgeon in this as in every operation for the removal of
cancerous breasts and other parts should not merely cut
away the parts already indicated diseased but likewise
some portion of the surrounding substance in which a
diseased disposition may probably have been excited.

When situated in the breast the operation may be
performed in the following manner. The arm of the
diseased side must be brought backwards so as to keep
the fibers of the Pectoral muscle in the stretch. Two
incisions are to be made forming an oblong figure in
which all the diseased parts are to be removed are
included. The lower part of the skin ought to be first
divided since if a wound is made in the upper part the
spilled blood covers the part below and prevents the
operator from seeing accurately. When the second incision
is made, made it should be nearly in the direction of the
times of the Pectoral muscle. If the glands in the Axilla are diseased the incision should be made high enough in that direction to allow their removal without injury. The best way to do this is to dissect the diseased breast out first & then to dissect upwards without cutting it off & declare the hardened glands & lymphatics in the Axilla which will be pulled down by the weight of the tumor. The vessels according as they are divided should be immediately tied as they will be forced to attach under the different parts in which they are situated & cause violent hemorrhage when the patient is warm in bed & reaction established which it is extremely difficult to check. As soon as the fingers can be passed above the axillary glands they are to be cut off & before this the cellular membrane connecting them is to be tied by a firm ligature to prevent hemorrhage from any vessels that may be contained in it. This direction is of importance if neglected the vessels will retract so high in the Axilla that the Surgeon will be unable to secure their orifices. When the tumor is removed the edges of the wound may be brought together by stitches, plasters & compresses. All should never be in a hurry to close the wound until reaction is fully
established. For this purpose we may give some stimulants as a little wine & water. If you should not the three get in the bladder immediately after they are divided if you find that they have retracted themselves into the adjacent parts your only resource to stop the hemorrhage will be to place a sponge in the bladder & leave it there until suppuration is fully established. If in the course of time you find that you have left a diseased gland & that it is on a cancerous disposition you should remove it.

On Cancer of the Eye

When it begins internally it most commonly arises from the retina. If you look into the eye it appears of a whitish colour. After a while a fungus begins to protrude through the pupil I send forth granulations which shoot out externally. Treatment. The best way is to expedite which may be done in the following manner. The Eyelids must be divided at the External & Internal Canthi. The tunic must be pulled out of the orbit with a Tenaculum. They may be divided with a common Scalpel or Bistoury. The orbit may afterwards be filled with lint to prevent hemorrhage.
On Cancer of the Testicle

Cancer of the testicle sometimes proceeds from blows & other injuries done to these parts. The tumor sometimes attains a large size & sends out large fungous masses which grow with great rapidity. This disease is attended with severe lancinating pains which shoot up in the direction of the Scrotum & Groin. Sometimes this disease attacks the superficial parts.

In such cases it may sometimes be relieved by the external application of E. Charloties but when it attacks the body of the testicle the only way to get rid of the disease is to extirpate it. The operation may be done in the following manner: The first thing to be done is to mark out that portion of the skin which is to be removed. This done you then dissect out the diseased testicle from its situation in the scrotum taking care that the incision should always be in the sound parts & that every thing diseased is left attached to the testicle having gone this far the Cord is to be examined & dissected up if necessary to come at the sound part. Whether the exposed state is now detached from the skin & surrounding parts can readily be ascertained. All that is necessary to complete the operation is the tying of the Cord which is best done by passing
a needle with a common ligature through it; in the intissue between the portion composed of the vas Depernet & the spermatic artery & the loose veins, which in a disease state of the testicle I found much enlarged & very vascular. The ligatures are to be tied sufficiently tight to deaden the substance which is included in them & the cord is to be divided. The cut edges of the tunica are to be brought together & retained by ligature. Adhesive plaster or an astringent of lint, according to the peculiar circumstances of the case.

In Cutaneous Cancer

Cutaneous Cancer in the commencement resembles a wart in appearance. It most commonly attacks the lips, the nose & in the beginning a small hard substance is situated under the cuticle which gradually enlarges in size. It becomes extremely painful, more so than that kind which attacks the substance of the glands. When it becomes ulcerated a discharge of a thick, watery fluid which excretes the surrounding part. A burning sensation is felt in the heart of a peculiar stripe like a line of mature. This disease should be removed before the lymphatics in the neighborhood of the parts, become diseased. When the lymphatics are
affected there is not so much chance of the operation being successful. When situated in the lips the operation is the same as that for hare-lip.

**On Cancer of the Uterus**

The uterus is sometimes the seat of cancer. It most commonly begins at the 45th year. Women who have not borne children are most subject to this disease. The first symptom is pain about the cervix; a discharge of thin watery fluid which excretes the adjacent parts. If examination is made the uterine is found hard, ragged, unequal; there pains of the lancinating kind will be felt extending towards the loins & back. Treatment little can be done by medicines in this complaint unless palliating the symptoms by the use of opium & injections of warm boric water or a watery solution of opium thrown into the vagina.

An operation has been proposed & practiced with success of passing needles armed with ligatures through the substance of the uterus above the diseased part & pulling it down until it protrudes at the external orifice of the vagina. Cutting off all the contaminated parts. The ligatures should also be cut out & the hemorrhage stopped by the application of styptics.
On Cancer of the Tongue

The tongue is sometimes affected with this disease. It resembles a raspberry in appearance. It most commonly begins on its anterior parts and also on its posterior surface. It attains a large size and sometimes extends into the pharynx. On the surface of the tumor there are a great many deep fissures. The disease may be extirpated in 2 ways by the knife of ligature. The latter mode is preferable. It may be done in the following manner: a needle armed with 2 ligatures may be passed through the substance of the tongue immediately behind the diseased parts. The 2 ligatures may now be separated & tied firmly at the basis of the tumor. They may be tightened gradually until the tumor drops off. This method has the advantage over extirpation as the latter is almost always followed by very serious hemorrhage.

On Cancer of the Penis

The penis is sometimes the seat of cancer. It begins usually with a wart-like tubercle on the prepuce, frenum or glans. This remains quiescent for many years but if irritated it becomes painful, increases in bulk & sometimes attains a large size. Ulceration takes place attended with a discharge of putrid matter. When the ulcer is of long continuance
the urethra is exposed & fistulous openings form through which
the urine flows & the disease is aggravated. The glands in the groin
& pubis enlarge & the disease extends in their course. To distinguish
Cancerous from venereal warts is not difficult. When the cancer
exists the penis should be removed before the disease has extended
itself too far. The operation may be done in the fol-
lowing manner: a circular incision is to be made
through the skin with a bistoury about half
an inch from the diseased part. The skin is to be
drawn back a little. The body of the penis
is cut through with one stroke of the knife.
At the part to which the skin has been
retracted, the vessels are to be securely ligatured.
The principal vessels are to be looked for
one on the bladder of the penis and one on
each Corpus Cavernosum. An elastic
Catheter is now to be introduced into the bladder
and the skin drawn forward so as to cover the
stump and secured in this situation by strips
of adhesive plaster.
In Fungus Hernatodes

This disease is one of the most dangerous to which we are subject. We know of no remedy for it unless by operation at a time, when we will find it difficult to make a patient submit to it, that is in its very commencement. Mr. Burns has called this disease Strongyloid Inflammation from its elastic feel. If a section of the tumour is made it seems to resemble brain in consistence at other times it appears glandular & bleeds profusely. In this kind it begins by a soft small tumour which feels soft & elastic if it is not covered by fascia. In the beginning there is no pain but when it grows larger the pain increases & is of that peculiar Lancinating kind. After awhile it becomes excruciating. In the commencement the skin over the tumour is not much changed in form or color at length it becomes uneven and irregular & changes to a livid color it becomes thinner & very much stretched small openings now form in the irregular projections through which a bloody fungus comes forth which spreads with great rapidity. After ulceration takes place the lymphatics become diseased. This affection may be known from cancer by its being softer by its progress with greater rapidity also by attacking
which cancer never attacks No part seems exempted from this dreadful disease. It attacks the Brain, Lungs, Liver, Spleen, Thyroid Gland. It is considered as a constitutional disease. It seems to arise from the vascular System. When it begins in the eye if you look into that organ it appears of a silvery line after which it comes through the pupil. I burst the cornea in Juvenile Delinquent Children young persons are most subject to this disease while old persons are subject to cancer. Tumors of the eye seems harder than cancer of that organ. Treatment. Very little can be done in this disease. If the eye is affected it ought to be removed. If it should commence in the muscular parts as the thigh, leg, Foot, arm or forearm. Amputation is to be resorted too as the only remedy. It must be done before the lymphatics become affected.

in Gonorrhea or Clap

This disease begins in the urethra near the Flans. The first symptom is a itching & slight pain in making water & the Flans becomes swollen. It is uncertain at what period the discharge takes place sometimes in 3 or 4 days sometimes later. In the beginning the discharge is thin & watery of a white color & small in quantity increasing gradually. In the second stage
stage it becomes thicker & of a yellowish color. In the last stage it becomes more thick & of a greenish hue. These are the most constant symptoms attending this disease but there are others which sometimes take place such as Chordee, Atrophy of the body of the penis & swelling of the inguinal glands. The bladder sympathizes producing a constant inclination to evacuate the urine at other times the Rectum producing a distreping Tenesmus but the most frequent symptoms attending this disease is Hernia, Hemorrhage. Then this last symptom comes on the discharge from the urethra is put a stop to. When the discharge returns the swelling abates & leaves an insurrection of the body of the testicle which continues a long time. At other times the disease puts on a chronic appearance commonly called Fist which he calls Chronic Gonorrhoea. He suspects that this discharge often proceeds from erection of the urethra. In women this disease is not very troublesome in general but is sometimes exceedingly painful. This disease is thought to proceed from inflammation of the mucous membrane of the urethra. In women it is difficult to distinguish this disease from an affection called Flower Albus in Gonorrhoea the discharge is more constant
the pain is greater in making water & the other symptoms are more distressing. Whereas in Thrumalus the discharge will sometimes cease for 2 or 3 days & then return. The woman's countenance is of a yellow appearance & she is often affected with dyspeptic symptoms. The Poison of Gonorrhea & Syphilis is considered by Wilson to be entirely different. Treatment: When the Inflammatory symptoms run high & the burning of urine is distressing the pulse strong & full & the bowels affected, bleeding & purging will be necessary. The latter may be effected by the neutral salts & they may be given in small quantities & frequently repeated. The patient must be kept on a low diet & be prohibited from the use of Spirits. He should be kept in a recumbent posture in bed & the penis laid back on the abdomen. Poultices of Bread & Milk should be applied. After the inflammatory symptoms are abated, mild injections consisting of Flaxseed tea, milk & water, rose water & sweet oil. The injections may be thrown in as far as possible. Sometimes the hands are so swollen as to prevent the introduction of the Syringe in this case the poultice of bread & milk may be applied, they will be found serviceable to diminish the swelling. After this has subsided the above injections may be used.
After which they may be changed for stronger ones as a solution of Sugar of Lead Sulph. Lime. Nitrate of Silver which may be used in the following manner take a small quantity of the caustic about the size of a piece of lead and rub it up in a small quantity of Sweet Oil on a plate as completely to dissolve it you may then take a small glass and set it over the surface and introduce it into the Bladder. The first application gives pain but will be found of great service sometimes a second application will be solicited by the patient. A weak solution of Citric Acid has been found useful as an injection. The patient may drink frequently a solution of L Tartar freely diluted with water. When there be takes place nothing has been found safer than Camphor it may be given in doses of 8 or 10 grains or going to bed Opium has been found useful. Camphor has been advisable when mixed with the poultices applied externally to the penis. When the bladder is affected the patient must be put into the warm bath. Opium may be given to relieve the pain if the water does not flow it must be drawn off by the Catheter. When the rectum contains producing masses injections of
Starch & Laudanum may be thrown up. If Hernia
Hernialis takes place fomentations & poultices may
be used & the lastics kept continually suppurated.
The patient may be purged & an over bleeding may
be requisited. Emetics have been efficacious to diminish
the swelling. If it should become indolent - Emetic
combined with Calomel may be used as it has been
with success. If the bladder should continue
irritable as scapule a half drachm of poison of
Nos. Vinci may be given three times in the day.
When it continues a long time an Opiate
plaster may be applied to the leins or a small
blisters to the Perineum. When it terminates in
Fleec we may give the 1/ of Cartharides 10 drops 3 times
per day. The Peltrim Copaiba has been employed. We may
at the same time use an injection of Mer of Mer.
If swelling of the leins should come on, they may be
treated as a simple phlegmonous inflammation by cold
applications. Mercury is of no service.
On Syphilis

This disease is a consequence of a specific morbid Poison which being applied to any part of the body produces effects either to the parts on which it is applied or on various parts of the system in consequence of Absorption. Chancre takes place most commonly on the penis but may occur on other parts of the body which if it does is commonly more painful than on the penis. It seems to attack the latter part in different places as the Skin of the Arms, prepuce, forehead, &c. &c. It seems to have a disposition to attack the hollow parts when it takes place on the penis as behind the Glans or at the Frenum which last part is most commonly destroyed. A chancre has commonly a thickened base & if the Glans penis is affected a small pimple full of matter forms without much hardness or swelling. When the disease occurs on the Prepuce or Frenum the effects of the inflammation are more visible the itching is gradually burned into pain. The surface of the prepuce is in some cases escharized and afterwards ulcerated. In attaining a small point it proceeds in the formation of the ulcer than a thickening of the parts takes place, & while the effect remains altogether specific it is very
Circumscribed  & its edge terminates abruptly. The base of the Chancre is hard & somewhat prominent. Some of this discription scalp on the gland sometimes cause profuse bleeding. In women Chancres are generally situated on the Chancere Labia or hymen sometimes in the Perineum but rarely in the vagina. When the foreskin is contracted so that it cannot be drawn back over the Glans it is called Phymosis. When this happens to a patient laboring under Chancre it is very painful. He considers Chancre in the beginning as local but the disease becomes constitutional in consequence of the virus being absorbed from the Chancere. The constitution may become affected without the previous appearance of the Chancere. But this seems doubtful as he thinks the Chancere may pass unnoticed by the patient in consequence of its smallness. After a chancre has existed sometime a hard chord may be felt extending along the back of the penis to the inguinal glands which swell causing a bubo. The chancre sometimes heals after the formation of a bubo. After the formation of a bubo the constitution is not considered to be affected. After it has taken on the ulcerative process the chancre
that there is no difference between it & Chancræ. The way almost pronounces the patient to be laboring under the secondary form of Syphilis. After this ulceration continues sometime it assumes a yellow color & this constitution becomes affected in the following order the Skin, Throat, Fascia & Bones. When it attacks the Skin it assumes in the form of copper coloured blisters from the size of a 12½ cent piece to that of a half dollar or even a dollar. These sometimes seem to get well & form scales which fall off, but a number of fresh ones make their appearance until at length the parts are expanded & ulcerous forms. When it attacks the throat an ulcer of an oval shape appears covered with a white conglomor which is very difficult to remove. It mostly begins at the tonsils which seem as if their substance was dug out. The ulcer is not very painful in these parts it sometimes proceeds with great rapidity. If this has been proceeded by the affection of the cuticle & Chancræ it may almost pronounce the patient to be laboring under the secondary form of Syphilis. When the disease attacks the bones it does it in the form of indolent swellings which in the most part are exceedingly painful they are
called Venereal Nodes. Where it takes place in the bones of the Cranium it mostly begins in the Parietal bone causing them to become carious & even destroying the membranes of Brain. There are other forms of this disease such as venereal warts which for the most part are very painful. Women are the most subject to this form of the disease. They may be known by having a broad base top & narrow base Condylomatosus tumors sometimes appear about the Fingers at other times affections called legada. 

Treatment

That Chancres are local affections is confirmed by the circumstance of their admitting of being cured or destroyed mainly by Local Treatment. It is a question whether mercury should ever be applied locally to Chancres or not. Gibson considers in the cure of such sores there are 2 objects to be aimed at one is the cure of the chancre itself the other is the prevention of the Contamination of the System. When we find a chancre forming we should do our utmost in our power to destroy it. 2 methods have been proposed viz. Expiration & Descharoctics the latter is the best and safest as the former is apt to be followed by hemorrhage.
especially if it is seated on the Glans. For this purpose we may employ the Lunar Caratce which may be made fine on the top of the surface of the Chancre touched with it. By this means we may often prevent the absorption of the Virus & formation of a Tubo even after the Chancre is fully formed. We should never trust to these means alone but should give Mercury in some form. For this purpose we may give calomel in small doses of 1 or 2 grains 3 times a day if it should purge it may be combined with Opium. The blue pill may also be given it is thought to be superior to Calomel; it may be given in doses of 5 grains morning & evening. We should never dilute a patient severely as no good can result from this practice but sometimes very dangerous consequences have been the result of such rashness. Then the patient's mouth is beginning to be affected the quantity of Mercury should be diminished & entirely left off. Friction with the Mercurient is considered a good way if not the best of bringing the constitution under the effect of Mercury. It certainly is when the internal exhibition of it disagrees with the patient. For this purpose we may rub a half dram morning & evening to be rubbed on the inside of the arms a
Thighs if it should cause a swelling of the glands of the groin or hip joint which it will often do we must discontinue the use of it on that side when the swelling appears, but may continue the use of it on the parts before mentioned until the patient is under its influence. As a local application to chancres, the black wash being the best we can employ it is made in the following manner:

\[ \text{Pep Rock Salt Tinct. Di} \] it may be applied 3 or 4 times a day

\[ \text{Ag. Calcis} \text{ 3} \] if the Chancres becomes indolent mix

\[ \text{the Comp. Bismut of oak plumbi} \] may be used. If after all our endeavors a bubo should come on we must try to prevent its coming to Suppuration. For this purpose the patient should be confined to bed & a blister which is found very efficacious should be applied over the part if dry it afterwards with a piece of lint. Sometimes have been found useful in dissipating these swellings if after all it seems disposed to Suppustrate we may employ poultices of bread & milk to hasten its termination.

The are 2 modes recommended for opening such tumors the knife & caustic. the former is preferred the skin should be allowed to become as thin as possible before my opening is made. It may afterward be depend on like any
common abscess when the secondary forms of this disease appear the more may be employed in the same way as for chancres. The Nitric and Muriatic Acids have been recommended in the secondary forms of this disease. These last have been used in the form of baths the patients feet may be soaked with it. Swains panacea has been found extremely serviceable in the secondary forms of this disease. Their plates 2 cases in which all the other preparations of Mercury were employed without any effect. He desired the first to try what effect Swains Panacea would have on the patient get entirely well under the use of it. The second also got well. Fumigations have been recommended when the patient cannot be brought under the influence in any other way. A disease called Erythema has been brought on by the use of Mercury. It comes in the form of blotches over different parts as the arms, thighs, breast &c. attired sometimes with great celebrity. Gibson says Mercury will cure this affection.
Caries

Caries may be defined to be an ulceration of the Bony parts. The spongy bones are most liable to this affection as the head of the Tibia.De It may also occur in the bones of the Carpue & Tarsus. Sore pain is experienced in the commencement. Ulcers make their appearance & when an examination is made the bones are found diseased. If fungus comes forth sometimes with great rapidity. Acids have been recommended for the purpose of destroying the growth of the fungus but have been found useless. Phosphoric Acid has been given internally as well as applied externally. Equal parts of White Arsenie & Sulphur will be found more useful in removing the fungus after which we will be better able to get at the diseased bone & should remove it.

Disease of the Vertebre & Curved Spine

Children of Schizophrenous diathesis are diseased most subject to this disease. Adults are occasionally liable to an attack. When it attacks children the following symptoms are observable in its commencement. The child is listless & easily fatigued on making any exertion or in exercise. He throws his head into his mother's lap as if unable to bear the weight of it. When walking his legs
suddenly cross each other he is thrown to the ground
then is difficulty of breathing a tightness at the Scapularis
Corbis When seated the legs are crossed if the feet carried under
the chair. As the disease advances an inability to move
the limbs comes on which terminates in complete
paralysis. The sensation at the Scapularis Corbis is
increased & feels as if the person was bound by a rope a disagreeable
sensation is experienced in the Muscles of the back & arms
sometimes violently at contracted, the digestive functions
become impaired and an inability to retain the urine and
faeces is experienced if the patient be an adult he complains
of slight pain in that part of the Vertebrae which is
affected which is sometimes mistaken for Rhenatism
If the vertebrae are examined they are found carious also
the intervertebral substance is found affected. The older
surgeons believed the disease to proceed from dislocation
of some one of the Vertebrae. This disease at times comes
on suddenly at other times very gradually. The cause
of this affection is very obscure. It mostly happens
in Dephthulosis persons. Treatment. The cure of
this disease is very difficult. It may be sometimes
cured in 2 or 3 months while at other times it will
take as many years & even in this length of time it cannot be accomplished. In the commencement of this affection before paralysis has taken place it will be necessary to confine the patient to a horizontal posture on a Malpas keep him on a low diet administer purges of Jalap &Cream Tartar & apply a blister over the affected part. The patient may be brought in the air but should not be taken out of the recumbent posture. When the blisters have had their full effect we should then employ issues on each side of the diseased vertebra. They may be made by rubbing some tincture caustic & rubbing it on the surface until it becomes of a brown colour in the course of 3 or 4 days the eschar will separate, the place a few peas of pemntum in the part then apply a compress over it & bandage to keep it firm. If a fungus should shoot out we may keep it under by the application of the vegetable Alkali. We should at the same time continue the use of the Jalap & Cream of Tartar after the patient is relieved it will be found necessary to use Artificial Support.
On Disease of the Hip Joint

In almost all cases the head of the Os Femoris is the seat of the disease. There are 2 stages in this affection in the 1st the limb becomes lengthened in appearance. The patient mostly complains of pain in the knee joint which is very apt to take the attention of the practitioner from the real seat of the disease. The Dr related a case when a surgeon was to see a child laboring under this disease, he applied various remedies to the knee without any effect. The Lady (wife of a surgeon who had considerable practice in such cases) told him that it was not seated in the knee but at the hip joint, at which he became vexed & left the patient. The Dr was afterwards called in and found it to be as the Lady had stated.

The pain in the knee is owing to the pressure of the Lachitic Nerve. When the limb is examined it is found smaller than the other. the Nails are flattened, the leg deformed & the patient cannot place his heel on the ground it mostly supports the weight of the body on the sound side. In the 2nd stage the limb becomes shortened in consequence of a spontaneous luxation upwards & backwards in the Gomum of the Thigh. In the first stage of the disease the parts about the joint are found thickened & inflamed.
In the advanced stage of the disease a quantity of matter is formed in the cavity of the joint. The Cartilages & ligaments are entirely destroyed. After the Luxation of the head of the bone out of the cavityNature sometimes agglutinates the head of the bone to the Ilænum. It is in general very difficult to arrest the progress of this disease. It sometimes proceeds from blows, at other times from sleeping on the ground or being exposed to a cold atmosphere. But if it comes on spontaneously without any evident exciting cause in this disease the pain is increased by pressing on the anterior part of the bone near the quadrilateral. **Treatment** In the beginning of the disease the patient must be kept on low diet. He should be occasionally bled. Luches may be applied to the part. He should be purged every other day with Jalap & de Tartr. If matter should form we should heal up the fissure. The patient must remain in a horizontal position and the limbs kept in a state of Extension. We may employ splints. In this purpose they may extend from the Pelvis below the knee to the ankle joint or one should be taken to attend to this latter direction as the the patient otherwise will keep it in an semi-lying state.
On Sprains

Sprains may arise from several causes in some instances are considerably lacertated but they are in most cases overstretched. An Ecchymosis is apt to follow injuries of this kind. Which in the beginning is of a purple but after a while turns a yellow colour. The Treatment of these injuries is sometimes difficult—especially in those of a Periarticular habit as it may often prove an exciting cause of tedious & disturbing affections of such joints. The patient must be kept quiet and the limbs extended. The antiphlogistic regime must be adopted. Bleeding will sometimes be necessary.

A blister may be applied to the injured part & the limbs kept in a position which will not retard the circulation.

On Ankylosis

It denotes an intimate union of bones which are normally naturally connected by movable kind of joint. Its causes are different as after Sprains, fractures or any other exciting cause of Inflammation. There are 2 kinds true & false. In the true kind the Ligaments, cartilages be are absorbed. It is most apt to take place in the Synovial joints as the Knee & Elbow. In injuries of the superior articularities if we dread Ankylosis the Elbow must be
kept in a flatter state if the inferior it may be kept extended
In the true anesthesia no relief can be afforded In the false
the limb may be gently moved rubbed with some kind
of Liniment

On Cartilaginous Substances in the Knee Joint
Cartilages often form in the joints but for the most part in the knee joint several have been found in this situation When they are cut into they resemble Carti-
lages in consistence at other times they have been Specified
The causes of their formation are obscure but is for the most part attributed to Cold They are found within the capsular ligament & sometimes moves to all parts of the joint but it is often confined to one part Mr Hunter says that in consequence of inflammation Coagulable Lymph is thrown out by the vessels into the cavity of the joint which becomes vascular & forms Cartilage If there is any disposition to inflammation it is always increased by these foreign substances They are for the most part attached by a thin pedicle to some part of the lining membrane by which vessels enter for its nourishment In the beginning they does not cause much uneasiness but when they grow to some size they become distressing to the patient
Treatment. While these substances continue small it causes no uneasiness they should not be meddled with. But when it becomes large it causes pain & irritation it should be removed by an operation. In some instances a great degree of inflammation follows operations of this kind at other times very little. Disputes have arisen where the incision should be made but this must be determined by the seat of the substance where you have a choice the inner side is to be preferred. The Surgeon moves the substance to that part of the joint where he intends making his incision he grasps the substance firmly in his left hand I makes the incision immediately over it & afterwards takes hold of it with a pair of tongs & extracts it. Gibson thinks it is best not to unite the wound by the first intention as an accumulation of the Synovial Fluid is apt to take place which may be discharged through the opening. Symptoms of Tetanus sometimes come on after the operation. If such symptoms make their appearance large doses of Opium must be resorted to
In Spina Bifida

This is a congenital affection. It is sometimes situated on the time at other times on the Cranium. It is caused by a deficiency of the Bony matter. In some children it is very rare, in others it is very small. Children seldom live longer than five or six years. When the tumor is examined it appears to contain a clear limpid fluid which is covered with a thin ligament and skin. By making pressure on the tumor when it is seated on the Spinal Canal we can return it, but it will for the most part bring on convulsions.

Treatment. M'Cooper was the first to operate for this affection. He punctured the tumor with a fine needle and the patient got well. Others have not been so successful. Gibson says he operated in the same way but the patient died in consequence of the inflammation and suppuration which followed but he says the operation may be tried when no symptoms denoting Hydrocephalus are present and the child healthy in other respects. In cases of the foregoing description M. Hennetthy was the first to suggest the propriety of using...
On Hydrops Articuli

This disease attacks persons advanced in years. It mostly takes place in the knee joint. It sometimes arises from local injuries, cold &c. but is in the most part accompanied by general dropsy. It is sometimes symptomatic of Typhus. It may be known by the swelling being perceptible by the side of the Patella, and the fluctuation. In general it is not very painful. Purgative is recommended.

On White Swelling

In most instances there is inflammation of the Synovial Membrane sometimes the Cartilages are absorbed at other times ulceration takes place. But it often happens that a great quantity of Matter is thrown out. It happens most frequently in Adults. A difficulty of motion is first perceived after which pain comes on & increases to a great degree which prevents the patient from getting sleep for several nights together. Treatment

We must keep the patient in a low diet & have recourse to evacuants as bleeding, purging, the topical application of Leeches & a Blister which may be kept running for some time by the use of Savine Ointment. After the inflammation has subsided the patient must be
kept still I must allow, to take much exercise. When the
Inflammation goes on to Suppuration a small quantity of
Matter is formed which may be absorbed but which
sometimes produces Ulcerations of the constitution is
good in other respects I no hectic symptoms present
we should endeavour to save the limb but should the
Suppuration be extensive & attended with hectic Symptoms
Amputation must be had recourse to but it often
happens often the limb is amputated that the Patient
is carried off by Phthisis Pulmonalis or the disease
attacks some other parts.

On Exostosis

This disease is met with in the long bones but is occasionally
met with in the bones of the cranium. It is divided into
the Intermedullary, Spinaus & Lamellated. This affection
is sometimes brought on by Rheumatism, & Syphilis &c. It is in
the most part considered a local disease when it comes
in from the latter causes the usual remedies for that
disease may be employed. We may employ blistering if it
arises from Rheumatism, we have no remedy that
will be likely to succeed unless removing it by an operation
which may be done with Hey's Saw, the Spring Saw.
On Osteosarcoma

This is a most formidable disease. It appears like a small tumour which gradually enlarges sometimes to an enormous size. When cut into, the cavity of the bone is found filled with a fungous, fleshy substance. It is considered as a constitutional affection. Gibson relates a case where he amputated the leg for this disease. It came on (after jumping) in the form described. The patient got well 9 continued so for eleven months when suddenly, while walking the streets he was seized with a difficulty of breathing. I died a short time after with all the symptoms of Phthisis Pulmonalis. On examination several of the bones were found filled with this fleshy substance & expanded in size. Amputation is the only remedy in this disease.

On Spina Ventosa

By the above term is meant an enlargement of the bone with a quantity of matter contained within its cavity. This disease comes on without any evident cause.
When cut into, the bone resembles a thin shell. It differs from osteoclasia in the bone of the latter being found filled with a fungous-like substance, the only remedy is removing the diseased part of the bone with the Hig's saw or the saw invented by Dr. Gibson or the Taphine.

On Necrosis

This disease is mostly met with in young subjects. It appears in the most part in the middle of the long bones as the Tibia, Femur &c. but may occasionally occur in the flat bones as those of the Carcinus. In this disease a portion of new bone is forming around the old whilst it is decaying. It comes on in the following manner: pain is felt at the part which gradually increases to a great degree, the part swells & becomes inflamed. Matter forms which is discharged by fistulous openings. If the part is examined with a probe the opening may be discovered leading into the cavity of the bone. The disease goes on for a number of years & sometimes fungus Shoots out with great rapidity.

Treatment

If we are called in when the inflammatory symptoms are present we must subdue them by the usual remedies for inflammation.
When suppuration is established and it becomes necessary to remove the diseased parts, it may be done with a trephine or Hey's saw. We should not interfere until we see that Nature has done her part—i.e., seems incapable of doing any more. The strength should be supported by the usual means.

**On Injuries of the Head**

The skull may be fractured at all most any point. It may be extensive or it may be a fissure. The injury is not dangerous in itself but is so in consequence of the injury done the brain and its appendages.

The skull may be fractured without producing any dangerous symptoms. Sometimes a large portion is driven in and produces pressure on the brain; at other times a stellate fracture is produced. Sometimes counterfeit pressure is produced, for instance, a person receives a blow on the upper part of the left frontal and produces a fracture on the orbito-plate. The inner table may be fractured without any external appearance of it. In all injuries of this kind where no urgent symptoms supervene, such as those
arising from Compression from part of the bone being driven in or from the extravasation of Blood the Hyphine should not be employed. The patient should be copiously bled and purged and kept on a low diet. The Antiphlogistic regimen should be observed for at least a month. All other means necessary should be employed to prevent inflammation of the Dura Mater a Brain from taking place.

Sometimes Compression of the Brain takes place supposing a patient to fall from a height and alight on his feet he is stunned at the moment of the accident his pulse is small and tremulous his extremities are cold, he lies quite stupid but his breathing is not obstructed for he seems as if enjoying a perfectly natural sleep. The Apoplectic Sopor which happens in Compression one of the brain is not to be found in Convulsion by which symptom they may be distinguished from one another. There is for the most part vomiting in Convulsion which is absent in Convulsion. The pupil is contracted. If the eyelids are opened the patient will shut them again into
The indication in Concussion is to establish the reaction which may be done by warm applications to the extremities, by wrapping the patient in blankets and putting him to bed. After the reaction is established the patient must be kept on a low diet, he should be bled and purged and all other means may be employed which will prevent inflammation of the brain and its membranes. This may be termed a simple state of Concussion. Sometimes the patient will remain in a comatose state for three or four days and the pupils considerably dilated. We should never employ stimulants in this affection as they are very apt to excite an inflammation of the brain and its membranes which is very likely to follow in injuries of this kind.

In all such cases the hair should be shaved off as if we want to make an examination it will be much more convenient we will also have an opportunity of making our external applications have a better effect. Sometimes compression takes place in consequence of the skull being driven in by the force
applied sometimes in consequence of extravasation of
by the rupture of an artery of the brain or dura mater.
The symptoms are the following. The muscles are
relaxed, the breathing is difficult and stertorous
the pupils are dilated and will not contract with
the strongest light, the stomach does not show
the least sensibility. When it proceeds from an
Extravasation of blood it may be known in the
following manner. A person receives a blow on
the head by which he is stunned and becomes
insensible; after a while he recovers his senses but
afterwards relapses into a state of insensibility
in such a state of things we may pronounce that the
symptoms proceed from Extravasation of blood
from some bloodvessels within the Cranium. When
it is produced by some part of the bone being depressed
(pressing on the brain the patient will not recover
his senses but the patient will symptoms will take
place instantaneously and will continue until the
patient is relieved by an operation. Our chief
indication is to apply the Trepheine on the injured
part. If we do not relieve the symptoms of

Compressed we may perforate in the course of the chief artery of the Dura Mater. Sometimes after extravasation the Periosteum will be found separated from the Cranium underneath and will not bleed when scraped. Extravasation may take place and yet perfectly well without any operation, but cases of this kind are very rare. When it happens that blood is pressed out on the surface of the brain immediately under the Dura Mater we should let it out by a careful incision with a Lancet. Patient seldom if ever recovers from such a state. After an injury of this kind, when the patient is conscious, the pupils dilated, breathing sterterous and the stomach insensible to impressions of all kinds we should apply the 13hephine to the injured part, but when the patient is sensible and answers questions put to him in such cases we should perforate the Cranium even if there is a depression of part of it. We should keep the patient on a low diet and bleed him frequently taking away about ten or twelve ounces each time. Purgers of the Saline kind may be administered. The head may be shaved and cold applications made to it.
After the use of all our remedies inflammation of the brain or
brain case will sometimes come on which may be known by the
swelling of the head, the flushed face, the numbness of the eyes, the restlessness
of the patient, the drawing up of the hands to the head, the dreadful
headache, & unquenchable thirst. The only remedy is bloodletting
in moderate quantity, frequently repeated, purging, low diet, applying
cold to the scalp. After all our endeavors it sometimes happens
that matter is formed on the inside of the cranium. It
may be known by the Pericranium separating from the cranium
by a circumscribed puffy tumor. If the wound is situated
over the part of the cranium covering the suspension of
the dura mater, it loses its thin venous color & becomes pale
& flabby. This demands the application of the trephine in order
to get at the matter beneath the bone. If the matter should
be situated beneath the dura mater it may be carefully opened
with a lancet. The patient must be kept on low diet while
the artery of the Dura Mater is opened we should endeavor
to try it by previously applying the trephine. If the
Longitudinal Sinus is wounded we may stop
the hemorrhage by applying a compress of lint
on the wounded part. As I have already explained
it is not the injury done the bone which will
cause you to apply the Tephrine but the injury which is made and communicated to the brain in cases of
Compression when a person receives such an injury
if you press on the part injured you will cause the
patient a great deal of pain and will answer questions
relative to the injury with distinctness but if the
part is depressed or pressure of any kind is
made on the surface of the brain or Dura
Mater in such a case if we press on the part
so injured we cause no pain The patient lies
insensible, his breathing becomes slow and laborious
the pupils in most cases dilated It will be
seldom necessary to employ the Tephrine but it
may sometimes be necessary in consequence of
pressure on the brain by the depressed bone or extravasated
blood or Matter formed and preceded by inflammation
We may sometimes relieve the patient without the
use of the Tephrine as in cases of fracture with
extravasation by insinuating some substance
between the fracture and separating them a
little distance from each other and arresting
the flow of the extravasated blood.
In cases of depressed we may sometimes succeed in elevating the depressed portion of bone without the application of the trephine also in cases of Spicule of bone surrounding the Dura Mater. When blood is extravasated under the Dura Mater and we apply the trephine it will be found to rise. In such cases we make a careful incision with a Scalpel and then introduce a director on which we make the incision any length necessary. Patients will seldom survive an injury of this description. When we think it necessary to apply the trephine we must avoid certain parts as the base of the Brain where it cannot be applied by any means also if possible the course of the Sagittal Suture with the temporal bone. When we find it necessary to apply it over the Frontal Sinus we should always use two trephines a large and a small one we make the first perforation with the large one which will enable us to make the other with facility. For the Operation see Drury's Surgery, &c.
On Fungus Cerebri

After the operation of trepanning a disease called Fungus Cerebri is apt to follow. Albemarle thinks it proceeds from congealed blood and Charles Bell thinks it as an organized substance. Gibson thinks the latter opinion the most probable as it bleeds very profusely when cut into, it is not painful. The best way to treat this disease is to remove it with the knife afterwards, making moderate pressure and keeping down the growth with Eucarabics.
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