

(1) Badly punctured
& Capitals misspelled

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AN
INAUGURAL DISSERTATION

ON

Inflammation

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BY

James Reid Ralston

OF

Tennessee

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Inflammation

first, inflammation is a perverted condition of the Blood and Blood vessels, of a part interrupting its Healthy Function and changing its normal structure, ordinarily attended with redness pain Heat and swelling, and including more or less disturbance of the general System, the term is limited to processes essentially morbid.

transition from Health to inflammation may be divided into three stages, first Simple vascular excitement, second active congestion third true inflammation, first Simple vascular excitement is where an irritant is applied to the skin and it

makes an impression on the nervous system which is manifested particularly in the blood vessels, at first the blood circulates with great rapidity, although the small arteries and capillaries are of diminished calibre, afterwards the vessels yield, and are dilated, and an increased quantity of Blood circulates with great rapidity, with a tendency to serous & plastic exudation, the Function of the part is exalted and this may be manifested by excessive nutrition or secretion, this is called simple vascular excitement, Second active Congestion more Blood

is sent to the part, and the Capillaries and minute arteries begin to give way under the increased pulsation of larger arterial Trunks, by overdistension the vascular coats lose their Tonicity, and partly from this cause partly on account of change in the Blood itself, which turns more viscid, with its corpuscles less distinct and when examined by the microscope it is said to possess an increased number of colorless Lymph Globules, which are said to be unusually adhesive to each other, and to the walls of the vessel

the circulation it is said loses
its acquired rapidity, becomes
slower even than in Health,
the red corpuscles are we
read no longer limited to the
Central current, but an
ever reaching step by step
on lateral and clear lymph
spaces. exudation is more
copious than in the previous
stage, it consists of Serum
and of Lignor Sanguinous
the latter usually predominating
and when the action has been
for some time sustained
and as it were established
in the part Fibrin alone
may be deposited the natural
Function of the part is not

simply exalted but begins
to be perverted that is
distorted corrupted. for
example secretion is not
only increased but changed
in its character, Nutrition
is becoming more and more
disturbed, this is the com-
mencement of disease
action, this action may
resolve after the removal
of its simple exciting
cause, or it may be sustained
for some time, as in the
Healing of Wounds, and
the closing of Ulcers, or it
may advance to true
inflammation, the change
which had begun in the blood

is now completed, the over-
distension of the Capillaries
is established. The Capillary
power is for a time gone
perhaps in consequence of
Diminution or actual suspension
of the Nervous influence
and the coats of the Capillaries
and other vessels are thickened
softened and it is said to
be impaired in Cohesion
being themselves the subject
of structural change. The languor
of circulation approaches
Stagnation and it is
said to have actually
occurred at some points
every part of the distended
Capillaries is occupied by

Crowded Coloured and colourless
Corpuscles, partly it may
be from increased attraction
between the former and the
Surrounding Parenchyma
partly by accumulation and
adhesion of the latter to each
other and to the Capillary
walls, the altered Lignor
Sanguinis is exuded in
profusion, the Capillaries
also give way in their Coats,
and from the lesion, Blood
is extravasated in mass. sup-
puration Supervenes from
degeneration of the Fibrinous
effusion, or else secretive
elaboration of it ere yet
it has left the vessel

Breaking up and disintegration of Texture ensue according to the extent of extravasation and Suppuration, and the disintegrated texture is commingled with the effusion. The formative power has ceased and the opposite Condition, a tendency to disintegration from diminution of vitality, has become established, disorder of Function is complete. Secretion, for example, being in the first arrested, and when arrested more vitiated than before. The Local symptoms are redness, swelling, heat, pain and throbbing increased sensibility disorder of Function, arrest and change

of Secretion. Redness this is due to an affluxe of Blood to the part or in other words it arises from an increased quantity of Blood in the inflamed part, not only in the larger vessels, but also in the capillaries, the vessels become distended, and the capillaries convey red Blood. The proportion of the red Globules is also increased by the exudation of the Serum, The degree varies in different Tissues, and according to the intensity of the action. Compare for instance an inflamed Tendon with an inflamed mucous membrane

the Tint varies between a bright Scarlet and a deep purple, permanency is characteristic of inflammatory redness, the redness of Blushing is not indicative of inflammation, because it is momentary. In some inflammations the redness is partly caused by extravasation of Blood, but in most instances it depends on enlargement of the Capillaries, and the consequent increase in the quantity of blood contained by them, there are also varieties as to Tint, extent and form. The Tint of the redness varies in different inflammations, is common acute and Sthenic

inflammation it is bright and
vivid and the color of arterial
Blood, in chronic and asthenic
inflammation it is more of a
dark or purple hue, in Erythema
it is said to be of bright rosy
red, and perfectly continuous,
In Erysipelas it is of a darker
red, in Erysipelas attended with
great Bilious derangement
it is of a yellowish red,
Syphilitic inflammations has
something of a copper tinge,
in Scrofulous inflammation
it presents a peculiar soft
appearance, and when
inflammation is about to
result in Gangrene it is
said to be of a dark purple

or blackish hue. The extent and form of the redness vary according to the character and intensity of the inflammation and the nature of tissue principally involved. The presence or absence of redness is not by itself a proof of the presence or absence of inflammation, for it often exists without inflammation, as in the Crimson Spot of the Febrile Cheek, or in the Blush of Shame, or when produced by Friction, or by the application of Heat, or by the Cupping Glasses, or by Leeches &c on the other hand the absence of redness is no

Proof that inflammation does not exist, for some inflammations, as those of the Cornea, and of the Arachnoid membrane, are attended with Opacity instead of redness, it is only in Connection with other local indications that redness is regarded as a symptom of inflammation. The diagnostic peculiarity of inflammatory redness is its Continuance so long as the inflammatory action which causes it remains. Swelling may in the early ^{stage} of the inflammation, be occasioned in some slight degree by the increased quantity of Blood

but it is chiefly caused by
the effusion into the
intervascular spaces of some
matters called products of
inflammation, the nature
of these matters will
perforawards be ~~considered~~,
the swelling of inflammation
must be compared with
other symptoms also, for
in Oedema there is swelling,
but not inflammation, it
must be gradual in its
development the sudden
swelling produced by a
Hernia or dislocation
is not that of inflammation,
it must also be recent, not
like the growth of a Tumor

Swelling may be injurious as
in the Brain or Orbit of the Eye,
or it may be useful as in a
Fracture &c. It is said to be
most remarkable in loose
Textures, also in the Breast,
Testicles and Lymphatic Glands,
It depends upon the kind and
violence of the inflammation,
The more violent the action
the greater generally is the
effusion, and partly on the
nature of the part affected
being greater in loose and relaxed
Textures of a supple and
dilatable Character, such
as cellular tissue, than is those
of a hard unyielding nature,
such as Bones. In loose Textures

generally, the swelling is most remarkable. The consequences of swelling vary much according to the importance, the delicate nature, the situations and relations of the part affected, in Textures superficially situated which do not perform a Function of great importance, which are Loose and dilatable, and so placed that the swelling cannot prevent the performance of any Function essential to the Animal Economy, the occurrence of swelling is followed by relief, and is therefore favorably regarded

By the Surgeon, whereas, in
some internal organs, in
the sub-mucous cellular
tissue of the Glottis, and
in many Textures a delicate
nature, a very slight
degree of effusion is sufficient
to lead to a result. In
some firm and unyielding
structures it not unfrequently
causes the total destruction
of the part inflamed. Swelling
as a Symptom of inflammation,
it may be remarked, that,
like redness it is generally
greatest at the Centre of
the inflammation, that it in
most cases is gradually lost
in the surrounding parts

and that alone, as may be
proved by many examples,
it is no certain evidence
of Inflammation

Heat this depends upon a
rapid oxidation of the
Tissues, which are also supplied
with an increased quantity
of Blood, Heat of inflammation
may be partly actual, as
ascertained by the Touch
or the Thermometer, and
partly the result of a
perverted nervous Function,
It must be permanent and
Conjoined with other Symptoms
to be characteristic, for in
Fleetic as I have before
mentioned there is burning

of the hands and Feet, yet
no inflammation is there
Pain varies in kind depending
on the part principally
affected, it may be of a
burning, tingling, or
Pruriginous character,
as in certain inflammations
of the skin, or throbbing
as when the cellular tissue
is affected, or extremely acute,
sharp and lancinating,
and greatly increased by
stretching the inflamed
part, as in inflammation
of serous membranes, some-
times it is dull, heavy, obtuse
of an exceedingly oppressive
character and attended

with a feeling of Nausea, as
in inflammations of some
Glandular Organs, and
Sometimes it is of a severe
bursting Character, as in
inflammations of ligaments
fascia, perisperm or bone
Pain is caused partly by
pressure upon the nerves of
the inflamed spot, and the
distension of the arteries
which are supplied by
small nerves, and partly by
disordered function. Mechanical
pressure increases it, for instance,
by the by the Thand in
peritonitis, or inspiration
in Pleurisy, pain varies
with the natural sensibility

of the part affected, hence
^{inflammation} of the skin is more painful
than that of Cellular Tissue,
it is proportionate to the
yielding nature of the structure
affected, thus inflammation
produces more pain in bones
and ligaments than in mucous
Membranes, Pain is not
always indicative of inflam-
mation for example, In Spasm
the pain comes on suddenly
and is relieved by pressure,
In Neuralgia it is intermittent
not so with inflam^mation, in
the latter the ^{pain} gradually
increases from the first,
If it suddenly disappears
suspicion is excited lest

Gangrene has supervened,
It may be sympathetic,
and referred to a part at
a distance, in Neuralgia the
pain is at the knee, in
Liver disease the pain is
in the shoulder, in disease
of the Kidney at the orifice
of the Urethra. Pain in
different kinds of inflammation
varies much in degree, being
in some kinds exceedingly
intense, so as to constitute by
far the most urgent symptom;
while in others it is com-
paratively slight, in some
inflammations under certain
circumstances it is said that
pain is absent, or in other

Words there is none, usually
the intensity of the pain
is in direct ratio of the
firmness and unyielding nature
of the part affected, for
instance ligament bone
and fascia, structures which,
when sound are endowed
with little sensibility, are
extremely painful when
they become the subjects
of inflammation, there is
generally more pain in
external inflammations of the
investing membranes than
in those which affect the
substance of the viscera or
mucous membranes. In
inflammation of some parts

of Mucous Membranes
there is only a sense of
heat and uneasiness ~~It~~ not
amounting to actual pain
is generally greater in common,
than in Specific Inflammations,
with the exception of Gout,
of inflammation unattended
with pain. The following
examples may be enumerated,
insidious and indolent forms
of Seropulous Inflammations,
in which extensive disorgan-
ization is often produced.

Without the patient having
ever been conscious of actual
pain, The absence of pain
therefore is no certain evidence
that inflammation does not

exist, and it is equally true
that its presence is no
proof of its existence
of this we have examples in
Cases of Neuralgia. The inflam-
matory pains are aggravated
by pressure, whereas in
Neuralgia it is often
relieved by pressure,
it is generally intense from
the commencement
and sometimes subsides
suddenly. Inflammatory
pain steadily increases
while the inflammation
advances, having been at
first perhaps nothing
more than a slight increase
of the natural Sensibility

Its sudden subsidence of pain
in violent inflammations is
more to be dreaded, than
desired, as it gives ground
to suspect that the part
has lost its vitality, from
the inflammation having gone
on to Gangrene

Impairment of Function
in Inflammation. Impairment
or perversion of function
is an almost invariable
Symptom varying much
in character according to
the organ affected, and
the degree and progress of
the inflammation. It is
said to be in many cases
first increased then perverted

and afterwards, entirely arrested,
for instance the Brain
when in inflammation no
longer continues to perform
its office as an Organ of
intellect, having its Function
at first exalted as in delirium
and afterwards entirely suspended
on the supervention of Coma,
and other organs as the Stomach
and Kidneys, and the Eye
becomes intolerant of the slightest
impression of Light.

The Causes of Inflammation
may be divided into

predisposing and exciting.
Predisposing Causes Sanguine
temperament, excitability
Plethora, excess in food

Drink or exercise, debility,
bad air and clothing previous
disease & these may be
considered as Constitutional
or idiopathic, Exciting
Cause Acids Salts & or
Mechanical effects of
Wounds, pressure & indirect
or vital, such as heat and
Cold, Specific, as in the
instance of Vaccine virus,
the duration and character
of inflammation are mod-
ified by the nature situation
and condition of the part
affected, and the temperament
and the diathesis of patient
Age, Sex, habit, atmosphere
and Season all exercise

an important influence
in its progress and Type.
Results of inflammation
resolution is the most
favorable result, it is
the restoration of the part,
as regards both structure and
function to its original
and normal condition effusion
takes place the vessels are
relieved, the red Globules
moves on, absorption takes
place, and the usual symp-
toms subside, which when
serum is effused and collected
in serous membranes it
constitutes Dropsy, hemorrhage
occasioned by the destruction
of the Coat of the vessels

if it occur in the interior it is termed extravasation, it is usually injurious, by producing pressure and exciting irritation as for instance in the humors of the Eye, or membranes of the Brain, Suppuration the formation of a Fluid called Pus, it is calledlaudable when it is yellow ~~or~~ creamy and Opaque, insoluble in water but readily mixing with it, it has no odor, but a slightly sweetish taste it is not Corrosive, but bland and protective to tender granulations until covered by cuticle it

Consists of a Fluid and
Globules, the Fluid is the
Liquor Sanguinis of the blood
effused, when Suppuration
is profuse and long contin-
ued, in a debilitated frame
it produces a Fever called
Aetie, Ulceration is supposed
to be entirely the result of
absorption, it is more
properly a vital Softening
of a Tissue changed by
inflammation & Suppuration
becoming disintegrated and
Fluid, it passes away with
the pus, the greater the
inflammation the more
rapid is the destruction,
Congestion is a predisposing

Cause of Ulceration. Those of intemperate habits, and of Scrofulous or Syphilitic Taint, are most liable to be affected are those whose Circulation is weak and Languid. Mortification is the Dying and Death of a part from injury or disease.

Gangrene denotes the process of dying and is recognised by the following signs. redness is changed into a livid hue Circulation is arrested, so is effusion, pain and heat abate, often suddenly, putrescence commences and there is an offensive Smell and Diccication

The constitutional symptoms are of a Typhoid form, the pulse is small and frequent, irregular or intermittent the countenance is anxious, the Face livid, the nose pinched or contracted, anxiety is soon changed into stupidity of expression, as if the patient were under the influence of Opium or Alcohol, Sighing hiccup, and involuntary movements of the hands and fingers are now observed, such as picking at the bed clothes, appetite fails, the Tongue is coated with a brown fur, except at the tip end and edges the tips and

Mouth are dry and incrustated.
Swallowing is difficult. The
Mind is stupid.

Necrosis may be acute
or Chronic. Acute comprehends
the humid, inflammatory
and Traumatic. The Cause of
Necrosis is a want of
Vital Power, and may be
the result of high inflam-
mation, Mechanical injury,

pressure, heat, obstruction to
the return of venous blood,
deprivation of nervous energy

I will offer a ^{few} words on the
Treatment, first remove the
Cause, and afterwards to prevent
or diminish the inflammatory
action, the chief means are

are termed Antiphlogistic
and consist of General blood-
letting, this is only required
when the inflammation is
severe as in Erysipelas and
Compound Fractures, when
important organs are involved
Such as the Lungs, Bladder,
Kidney, Eye and Peritonium
If resorted to unnecessarily
it produce congestions effusions

&c