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ON
Influenza.
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BY

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of

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This Essay Is

Posthumously Inscribed

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Inflammation

In choosing a subject for my Inaugural dissertation, I have selected Inflammation, I have not been influenced in my selection by its difficulties, but its great importance to the Surgeon, and Physician. I shall attempt to recall and embody a part of the instructions I have received since I commenced the study of Medicine, in reading and attending lectures, last season in the Jefferson Medical College, and this session in this Institution.

Whatever truth is valuable there may be in what I write, I owe principally to the lectures which it has been my privilege to hear within these walls.
Errors however may arise from my Misapprehension, and in attempting to advance my opinion on the subject.

Definition. — The definition of inflammation varies with the fancy of different writers. That of Miller is as generally received as any; he defines inflammation to be "a perturbed condition of the blood and blood-vessels of a part, interrupting its healthful function, and changing its normal structure, ordinarily attended with redness, pain, heat, and swelling, and inducing more or less disturbance of the general system."

On the importance of a correct knowledge of the subject of inflam-
nformation in all its bearings, would indeed be a work of supereroga-
tion to enlarge.
The greatest improvement in the healing art seems to have resulted from appreciating the unity of nature's operations in a great variety of dissimilar diseases. We can scarcely conceive of a Practice of Medicine, Branch of Surgery without some distinct Knowledge of inflammation.
And in recent times has not the progress of physic been chiefly promoted by the establishment of more complete analogies between internal diseases, and the external inflammatory, with which we-
Were necessarily more familiar.

Inflammation is not so much a
disease, as a Mode of action; common
to nearly all diseases. It is not
only the process by which Nature
in a Majority of cases destroys li-
ses, but that by which in less un-
averse Circumstances, it pre-
-ervs, and restores, healthy Life.
It is similar to the Surgeon's Knife,
or Soldier's Sword; that which sav-
es or destroys Life: What is called
Functional disturbance may occur
and in some cases destroy Life wit-
out actual inflammation; but
it is more than probable that Morb-
-id conditions never proceed so far
as to produce Structural lesions, with-
out the supervision of inflammation.

Even in some of the most necessary functions, not morbid, a process occurs entirely like inflammation, and differing from it perhaps only in degree. The development of the foetus in utero, the occasional action of the erectile tissues, even digestion, exhibits some of the characteristic features of inflammation; and on the other hand there are inflammations strictly so-called which, for want of a better name, we distinguish from others as healthy inflammation—rather a bad name. Most writers make three stages of transit from health to inflammation, first simple vascular excitation—
Ment, second active congestion, third true inflammation. Nervous excitation, from whatever cause produced, generally occasions a greater flow of blood to the part affected, and on any obstruction to the return of the usual amount of blood in its turn excites the nerves; blood would seem to be the material, nervous influence the power, with which nature in organic bodies, does her work. When excitement or stimulation, stops short of inflammation, it is the irritation of Pathologists. The subject may, or may not, be conscious of this state, but in a higher degree, the nervous excitation manifests its--
Self in pain, and the sanguineous accumulation by its color visible through the integuments, or on exposure of the parts, the readiness not being transient but diffused through the capillary vessels; swelling also results from this state of the vessels, or from the effusion which are its consequences. There is an increase of heat, either from the state, or action of the nervous or vascular system, or both; this elevation of temperature although the most striking signs and that which has given name to this state, is more apparent than real. The more delicate sensibility at that time being such that a change of two or three degrees has all the effect.
apparently, of twenty or thirty degrees. There is also frequently throbbing in
the part, and an alteration, or sus-
pension of the natural secretions,
of the part affected.
The four phenomena enumerated
were known and designated by name,
by the oldest writers, and are as co-
venient names as they were two thou-
sand years ago. By carefully regar-
ding the above symptoms, we will
generally be able to distinguish infl-
amination from the Neuralgias, and
the other near irritations; and on
the other hand from Congestion
and plethora. How much the Nervo-
es have to do with its development is
hard to determine. That some causes
of inflammation; irritation, operate first on the nerves, is probable from the following facts: a mechanical injury, may act on the sensitive nerves long before inflammation begins; thus, the pain from the sting of an insect is felt instantaneously; and still more in the effectual manner in which it is prevented, or restrained, by the bandage to a degree much greater than can be accounted for by the effects of the pressure on the blood vessels alone.

According to its intensity or something peculiar specific, in its action, and varying also with the structure or situation of the part affected, inflammation has been observed to
have tendencies to various results.
Most of these have been technically
enumerated.
Terminations—There is by no means
the same agreement with authors
about the terminations, as the sig-

The signs of inflammation, scarce any
two books will agree in their
enumeration of them. Professors
Mutter and Cve, give only three
which I think is correct.
Terminations—first Resolution, se-
cond Metastasis, third Mortifica-
tion. Resolution, this is the most
favourable result, if the cause be
not too violent or long continued
the excitement passes off, the effu-

sion, if any, is absorbed and the ba-
Vance of the circulation reestablished; there is a gradual disappearance of all the symptoms, the purpose for which inflammation was required being effected. A lassitude is the sudden disappearance of inflammation, and which it is attended by the establishment of the same symptoms in a new host, the term Metastasis is used.

 Necrosis and Gangrene by most writers are considered products of inflammation, but I think they are more properly terminations.

Local death may occur from direct Mechanical Violence or Chemical agents, from the Nutrition of the part being cut off, or from excessive inflammatory action exhausting its vitality.
Parts may be so embrocated that any degree of inflammation is relatively slow, hence in parts great injury the necessity of caution in slowly applying warmth and other stimuli and reaction, but the most gradual, being relatively inflammatory, and almost as certainly ending in necrose. When from the extent of the local injury or the state of the general health, nature cannot prevent mortification, the extremity itself will assist it and endeavors to prevent its diffusion. In external parts the district otter is one of the distinguishing signs, often suddenly the pain and heat abate, and the circulation is arrested in the part, and vesicles filled with serum appear over the skin.
The products of inflammation are various and differently treated of by writers. I will mention some of them only. Adhesions, after a solution of continuity, if the divided parts are brought, and kept in contact, there appears under favourable circumstances to be no inflammation developed, so if and no more than is necessary for their reunion; the minute vascular ramifications are elongated across the line of union, and the parts become one again. This disposition to take on adhesion is most manifest in the Serous Membrans; and the wisdom of the arrangement, and the evidence it furnishes of providential design on the part of nature, is at once obvious when we consider what would
be the consequence of every attack of
Pleurisy occasional emphysema or
separation of the lungs.
It has been supposed that when
inflammation runs high, the Pleuric sur-
faced like the Serous take on adhe-
rence; the cases in which this appears to
take place are explained, in the pre-
vious sloughing away of the Pleuric
membrane, and the union of the dem-
uced Cellular Substance. — What
would be the term of life if the Pleuric
Membrane, so much more opposed to
inflammation than the Serous, were it
subject like it, to adhesion. The ad-
hesive process is useful in the forma-
tion of Oysts, in healing wounds, i.e.
Sealing bloodvessels, enveloping pus;
adhesion may be serviceable or injurious.
Suppuration is a very frequent product of inflammation. It is often required to remove foreign bodies before the inflammatory action can terminate. The consequence of suppuration and the collection of pus in the serous cavities is dangerous and often fatal; in the cellular tissue it gives rise to abscesses, which if well circumscribed and favourably situated is very far from putting an end to the inflammation. But it is believed is not as was formerly taught a product of putridation; but a true, though morbid secretion. Tissues not naturally secretory become so in this stage of inflammation, and secreting surfaces however different their natural products, throw out when inflamed.
the same well known Matter, Profuse Suppurition. When long continued or in a debilitated per-
son it is apt to produce a fever ca-
led hectic. The eyes are peculi-
arily bright. Though sunk in hollow
orbits, there is a general Pallor over
the surface except upon the cheeks.
When the well known hectic blush
is, which if once seen can never be
forgotten. Laudable pus is not cor-
r- dissolve but bland and protective to
tender granulations, the access of air
to a Wound or Scource Member
promotes the formation of pus
Ulceration. Hoarfrost and others sup-
posed that ulceration was entirely
the result of absorption, but more
recent writers think it is more
properties, artful softening of a tect-
ure, changed by inflammation and
suppuration; becoming disintegrated
and fluid, it passes away with
the pus. The intemperate and debil-
itated, from what ever cause pro-
duced, and those of Herophilus or
Albucasis, taint are most liable
to be affected. The parts most li-
able to be affected, those most dis-
tant from the heart, and where
the circulation is weakest. The att-
remities and parts of recent gro-
with, Cicatrix, and Callus.
For want of time and space, I have
written but little of nothing on
many of the products of inflam-
mation. Ectusions, hardening or
softening, atrophy or Hyper trophy.
Diagnosis. From experience I can say but little of diagnosis; yet I think by closely observing the general symptoms it would not be difficult to distinguish inflammation from mere congestion, active determination of blood to a part, nervous irritation or neuralgia. Congestion is an accumulation or stagnation of venous or capillary blood in a part, the cause may be a mechanical obstruction to its return or by weakness or want of tone in the vessels. Congestion may produce some weight, pain and disturbance of function. Neuralgia generally may be distinguished from inflammation by its often being relieved.
by applications that would augment inflammation, pressure and stimulants, and by the pain being severer than the symptoms would justify—And the pain usually intermits, and many other signs I might mention.

Treatment the treatment of inflammation must be varied according to the various modifications and tendencies mentioned, and to many circumstances besides, that cannot be deduced to here. The kind as well as degree of inflammation, its seat, connexion and stage, have all to be considered. The general indications of treatment might be summed up in a few words, while a particular account of all kinds and cases of infla-
lamination must be extended to volumes.

The word Antiphlogistic appears to have been long in use and conveniently expressive of the regimen appropriate for most inflammations or fevers. It may be understood to imply the utmost possible avoidance of all stimuli—physical, mental, or medicinal stimulants included, under applied as remedies or counter irritants. In proportion as our knowledge of inflammatory disease has increased, their treatment has been generalized and a few judicious remedies have taken the place of the innumerable applications and prescriptions of empiricism.

With but few exceptions the first
the first object should be to remove the cause and then to prevent or diminish the inflammation.

**General Bloodletting.** This is not required unless the inflammation is severe or when important organs are involved, for instance, the lungs, brain or their membranes or the peritoneum; for example, in Child Bed Fever, which I think is nothing more than inflammation of the Womb or Veins of the Womb and peritoneum. In the above cases general bloodletting will frequently be required, the patient should be sitting and the the blood should flow in a full stream, the benefit to be derived from bleeding is not merely the loss of the superabundant blood, but also the absolute influence. Where by the empt...
tired Capillaries can resume their natural tone.

Local bleeding is often preferable when the inflammatory action is not high or is external or the strength of the patient forbids general bleeding.

Purgatives are generally of much service in inflammation, they not as derivants, prevent nutrition and promote absorption, but generally are contra indicated in inflammation of the bowels.

Emetics, diuretics and diaphoretics are of great service in unloading the stomach and promoting the defecations. Mercury is also highly beneficial in many cases, it prevents or limits impending effusions and adhesions and at the same time
...f1dites the removal of that which has already been blured. Oppium or some of its preparations in a majority of cases is indispensable at some stage during a severe attack of inflammation. It is of much importance to attend to the diet and drinks in inflammatory diseases, and at the same time the mind and body should be at rest and comfortable. Ventilation is of the greatest importance, the inflamed part should be as quiet as the case will admit of. Position. The part should be elevated so as to assist the return of blood from the part.