

AN  
INAUGURAL DISSERTATION

ON

*Inflammation.*

SUBMITTED TO THE

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# Inflammation

1

Inflammation may be defined to be increased heat, redness, pain and swelling, with a change of function in the part affected, without stopping to make a lucid exposition of the signs of inflammation, I shall simply remark that the heat and redness are the result of a superabundance of arterial blood in the affected part, herein by the distention of the blood vessels, pressing upon the nerves, as they are contained in the same sheaths with the arteries and veins, swelling is caused by the effusion of serum, Upon reference to the standard authorities I find there are various theories in relation to inflammation and hence—

2

I find myself compelled to think for myself, but perhaps it is better for me to <sup>think</sup> now, than to be driven to reflection on this for the first time, when I shall be called to a fellow man labouring under inflammation of the brain, when every moment of time will be precious.

I shall content myself by noticing in a very brief manner inflammation in its usual divisions, of acute and chronic and even in them I shall confine myself to the consideration of its nature and treatment.

Then what is the ultimate cause of inflammation is it located in the capillary system or in the nervous system or in both

I can understand that an impression being made upon the capillaries that impression might be extended to the heart and arteries generally and that more blood would be sent to every part of the system from the greater frequency of the heart's action and that an impression being made upon the nervous system the same excited action might be given to the heart through the influence which the nervous system exercises over every part of the body. Now the heart acting ~~the~~ part of a pump (according to Simons general pathology p. 50) I can understand how there might be an inflammatory condition of the system

generally - but that would not explain how a single part becomes specially affected, hence it seems to me that there must be some cause located in the inflamed part itself to cause an undue quantity of blood to flow to that particular part, and this cause I locate in the organic cells this living tissue or organic cell, which in its normal condition attracts out of the neighbouring blood vessels, the material necessary for its own growth, and nourishment, should its vitality become interfered with; by injury, poison heat, cold, or any other cause of disease; attracts a large quantity of arterial blood

and this with nervous disturbance  
constitutes inflammation

This change of cellular action  
lays the foundation for excreting  
the secretions in inflammatory  
disease; Having said this much  
upon the nature of inflammation,  
I shall pass directly to the consideration  
of acute inflammation.

In the acute variety of inflammation  
the disease is very rapid in its  
progress and violent in its action  
and attended by pain. If the  
inflammation involves a considerably  
extent of surface or is located  
in a vital part or an irritable  
constitution. The first thing that  
occurs in the inflamed part is  
increased circulation with more  
than the normal quantity of

blood in the capillaries and blood  
vessels. Serum is hereby exuded into  
the interstices of the affected part.  
Should the inflammation, not  
be arrested at this point the  
blood becomes stagnated, and the  
red globules begin to adhere to  
each other and to the sides of the  
walls of the capillaries constituting  
the second stage of inflammation  
and if the disease continues on;  
the tissues are broken down, and  
disorganized at the point where  
the inflammation is most intense  
and pus is formed ~~formed~~ out  
of the effused lymph.

We now have the subject of  
inflammation before us fairly, we  
have seen the steps by which  
it makes its ~~inroads~~ upon the

System and are now prepared  
to enter upon the treatment, in an  
intelligible manner for I think  
that all will admit, that if we  
can prevent these steps the above  
results or terminations can never  
take <sup>place</sup> and to their prevention I now  
address my treatment,  
The first remedy in point of  
importance in acute inflammation  
is general bloodletting, and without  
entering into the discriminations,  
which Williams in his principles  
of medicines makes, I will  
barely remark that in my  
opinion as a general thing,  
the bleeding should be early  
and in a sufficient quantity, to  
make an impression on the  
system. This may be followed



by ~~local~~ bloodletting if necessary  
 local bleeding is preferable when the  
 inflammatory action is not high when  
 the powers of the system are low  
 when the inflammatory action on  
 the heart, has been fully established,  
 and there would be no benefit from  
 a general bloodletting, and when  
 extreme old age forbid it; and this  
 again by the use of cold ~~is~~ water  
 properly applied, or the application  
 of blisters, after the circulation has  
 been reduced; according to the seat  
 of inflammation and the organ  
 involved; In conjunction with  
 the above I would make free  
 use of mercury, (i.e.) what I  
 would call a free use of it, by  
 which I wish to be understood  
 as using it for the purpose

of equalising the circulation,  
countering the sweats, and putting  
the secretory organs in the  
discharge of their proper functions,  
all of which I should desire  
to do short of salvation. In  
conjunction with all this - and  
~~and~~ that before the system had  
lost the impression made on it  
by the first bleeding, I would  
make full use of the veratrum  
vinale or the tincture of the  
of american hellebore as prepared by  
D<sup>r</sup> Howwood of S C. And here  
I must rely upon medical  
periodicals, for my information  
as to the virtue of this article,  
together with the experience, of my  
preceptor, who informs me that he  
has used the veratrum, for two

10  
years and a half with entire satisfac-  
tion. In the sixth number of the  
seventh volume of the Charleston  
Medical Journal there is quite  
an excellent synopsis of this remedy  
given by Norwood himself I am  
aware that there are now claims for  
new remedies than are generally realised  
but that veratrum will control the  
action of the heart and arteries  
where the stomach will tolerate it  
in a sufficient dose there is no doubt;  
this I will take as a settled question  
Now let us see how this remedy  
may be applied to arrest the first  
step of inflammation We have seen  
in acute inflammation increased  
action of the heart and arteries  
sending an unduly quantity of blood  
through every part of the system

11  
in a given time and especially  
of the ~~in~~ inflamed part - now by  
reducing the action of the heart and  
returning to their natural standard  
or below it we give the inflamed  
part an opportunity to rid itself  
of the undue quantity of blood thereby  
preventing the effusion of serum there  
being accomplished no stagnation of  
blood in the affected part can  
take place. It does seem to me  
from this view of the subject  
that venotomy is one of our  
most efficient remedies in  
inflammation. I cannot dismiss  
this article without noticing its  
almost specific action in  
inflammation of the lungs  
or pneumonia especially the ~~typhoid~~  
typhoid variety here it

accomplishes the very thing we want not only bringing down the action of the heart and arteries - but acting specifically upon the lungs in being our very best expectorants

I shall close the treatment of this variety of inflammation by making such use of narcotics when indicated as to allay pain and nervous irritation

Upon the chronic variety of inflammation I have but little to say, as the word implies it is of such a character as to continue long in the system and of such a grade as the system bear for a long time; This would seem to convey the idea that this character of inflammation is kept up by the continued action

of some local cause or by some constitutional condition of the system. Perhaps in the majority of cases when the manifestation of the disease is local it is the result of some constitutional condition of the system.

Hence if I am right we must enter upon the treatment of chronic inflammation with a three fold condition constantly before our minds eye 1st when it is local 2d local but kept up by some constitutional cause and 3dly when the disease is strictly constitutional—

The first is treated by local applications alone the second by both local and constitutional and the third variety by

constitutional ~~may~~ alone

The local treatment consist  
 in local bloodletting followed  
 by cold or astringents as solution  
 of alum acetate of lead nitrate  
 of silver either in solution or  
 the solid form which in some  
 instances may be followed by  
 pussum. But perhaps counter  
 irritatory stands prominent  
 in the treatment of chronic  
 inflammation especially those that  
 produce suppuration  
 as to the constitutional  
 treatment I should be governed  
 by the condition of the system  
 if the patient was in an  
 anamic condition I would  
 give iron in some of its  
 preparations ~~of~~ iron by hydrogen.

I consider the best) with vegetable  
 tonic as the extract of gentian  
 of the liver and secretions now  
 generally at fault I would give  
 mercury (guarding against  
 Salivation) if the kidneys were  
 at fault I should address my  
 remedy to them &c

But should the disease be located  
 the assimilative cellular or ultimate  
 tissue of the system I should  
 be induced from what I have seen  
 in print and have been told of  
 to make a thorough trial of  
 the compound solution of iodine  
 as it is our most efficient and  
 and thorough attractant especially  
 when the ultimate cellular tissue  
 is involved &c