

AN  
INAUGURAL DISSERTATION  
ON

*Bloodletting*

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Bloodletting, as a Therapeutic agent  
Bloodletting belongs to the class of remedies de-  
nominated arterial sedatives; it is by  
far the most potent remedy belonging  
to that important class

We will first notice some of its effects  
on the human economy. First, bleeding, less-  
ens the quantity of blood in the system.  
Secondly- it alters the quality of the circu-  
lating fluid diminishing the relative  
proportion of the red corpuscles, thereby  
rendering it less stimulating.

Thirdly, bleeding increases the watery por-  
tion of the blood, diminishing its spe-  
cific gravity; this is mainly depend-  
ent on increased absorption.

In the fourth place bleeding diminishes  
directly the force of the heart's action.

Fifthly, it enervates the whole nervous

system. In the sixth place it produces general relaxation of the entire muscular system. Bleeding is certainly the sheet anchor in the treatment of inflammatory affections, especially inflammations involving vital organs. There is undoubtedly no affection to which the human organism is so liable as inflammatory action; there is not an organ or tissue in the whole economy entirely exempt from its ravages, though some tissues, owing to their greater vascularity, are much more subject to its ravages than others possessing less vitality.

So liable indeed is the economy to inflammatory action, that there scarcely exists, for any considerable time, a disease, however trivial, which does not excite inflammation (if not dependent on inflammatory action) in some one of the various tissues.

It is said that ninetenths of mankind die from inflammation and its effects, its tendency is decidedly to destruction.

Bleeding, if it will not cut short inflammatory action, strangle it, as it were, in its very outset, it will, most assuredly, abate its violence, limit its effects. in short conduct it to a favorable termination.

It is obviously of the utmost importance that we should learn, so to use this valuable remedy as not to abuse it; its powers are prolific of evil as well as good. When rashly and improperly employed it is certainly a very dangerous remedy; and there can be little doubt that it has been the means of destroying many valuable lives. It is said by some medical philosophers that the lancet has destroyed more lives even than the sword.

But on the other hand it has doubtless been the efficient agent in saving more lives than any other single remedy.

The abuse of a good remedy affords no evidence whatever in favor of its rejection in the treatment of disease. Suppose we were to adopt the rule, that we would employ no remedy, which has been abused—how many, I ask, would we have left to combat the various ailments to which flesh is heir? not one I apprehend. Opium, Mercury, Antimony, Quinine, Iron, Ergot, in short all remedies of importance, where is the remedy that has not been abused? The fact that a great remedy ~~remedy~~ has been abused should only impress upon us more strongly the necessity of making ourselves more thoroughly acquainted with its various indications and also its contra-indi-

ications in the treatment of disease.

Circumstances modifying the effects of bloodletting. Age has considerable influence over its action, very young, and very old, persons, bear the loss of blood badly. Sex also modifies its action, as a general rule males bear the loss of blood better than females. Temperament is not without its influence, persons of a sanguineous temperament require the abstraction of much more blood than do those of a phlegmatic or nervous or a choleric temperament. Habit, previous condition of system, in Temperate persons bear the loss of blood very badly, and such should always be bled with the utmost caution. Season is not without its influence, as a general rule the loss of blood is not so well borne

in summer as in winter. Climate exerts no inconsiderable influence over its effects on the system, those residing in cold climates bear the loss of blood better than those living in temperate latitudes, and those of the latter, better than those living in tropical regions. Repetition, as a general <sup>rule</sup>, a first bleeding is better borne than a second, but occasionally the reverse. The prevailing epidemic constitution of the atmosphere, as it is termed, exercises not a little influence over the action of bloodletting, during some years the tendency is decidedly to inflammatory action, and this tendency may continue for an indefinite period. At such times all diseases have a decided tendency to excite inflammatory action, bearing and even demanding the frequent and copious

abstraction of blood. Again the tendency may be to low forms of disease. Typhoid tendency, as it is designated, every affection assuming a low or asthenic type, when the loss of blood even in small quantities comparatively, is badly borne, during such tendency the lancet should always be resorted to with reluctance.

Lastly the character of the tissue inflamed modifies to a considerable extent the effects of bleeding on the economy; for instance, other things being equal, inflammation of serous membranes bears and requires the loss of much larger quantities of blood than that of mucous tissues or of parenchymatous organs. Congestion or inflammation of the brain and its meninges requires the abstraction of very large quantities of blood to affect the economy.



When deciding on the propriety of bleeding in a given case we are guided principally by the condition of the circulation. The pulse being the great index to the circulation, it becomes necessary that we pay particular attention to the different states of the circulation indicated by the pulse different kinds of pulse as they are termed. Other things being equal the pulse which most absolutely demands the abstraction of blood is the hard frequent pulse, also called wiry pulse incompressible pulse resisting pulse. The full bounding pulse also indicates the propriety of bleeding. The frequency of the pulse unless taken in connexion with other qualities is of little importance; in other words we should never bleed for frequency of pulse alone. There is still another condition occurring occasionally in

inflammation which it is of the highest importance that it be not overlooked, at the very outset of inflammation of some vital organ, the lungs or peritoneum for example, the attack is of such violence that the blood and nervous energy seem to be as it were concentrated in the diseased organ while other parts are actually depressed, and instead of a full strong pulse, high fever, there is often apparent prostration with a small pulse, pale cool surface etc. If under such circumstances a vein be opened the pulse generally becomes developed and much stronger and the blood should be allowed to flow till the pulse begins to falter not now from oppression but from real weakness.

Bleeding should never be resorted to unless there is a definite object to be accom-

plished- to produce a certain specific effect on the economy, and whenever the object is accomplished the blood should be stopped. If the object of the bleeding is merely to lessen the quantity of the circulating fluid in the economy, as for instance in plethora the blood should be taken from a small orifice, in order that the requisite quantity may be drawn without producing syncope.

But on the other hand if we desire to produce a decided impression on the circulatory apparatus with the loss of the smallest possible amount of the vital fluid it should be taken from a large orifice and in a full stream from one or both arms the patient being placed in that position (the upright) least favorable to the exercise of pressure on the brain

We should never as a general rule bleed to actual syncope but merely to approaching syncope, the injury produced by the reaction from that condition being often greater than the benefit derived from such bleeding. Whenever there is a decided impression produced on the system the bleeding should be suspended. As a general rule the salier we bleed in a given case the greater the benefit derived from such bleeding

As before stated the chief application of bloodletting as a therapeutic agent is to the treatment of inflammations. Now in inflammation there is an excess of blood in the part, exalted sensibility of the part and frequently an abnormally stimulating condition of the blood itself. The obvious indications are first

to diminish the quantity of the blood in the part. Second, to lessen the stimulating quality of the blood. Third, to lower the exalted sensibility of the part inflamed. Now there is no remedy which meets these indications so efficiently and promptly as bleeding.

Inflammations in which bleeding is specially indicated. In inflammation of the brain and its meninges it is of great value. in pleurisy, pneumonia, pericarditis, endocarditis, dysentery, peritonitis, iritis, and in almost any other itis, bleeding is specially indicated at some period. In puerperal fever it is of inestimable value, and cannot be dispensed with without jeopardizing the life of the subject. Bleeding <sup>is</sup> also a valuable remedy in the treatment of *Cynanche trachealis*.

Bloodletting is an invaluable remedy where there is great congestion or determination of blood to a vital organ. In threatened apoplexy from cerebral congestion bleeding is of the utmost importance. In hemorrhages where the bleeding results from vascular irritation or active congestion of the part.

Bloodletting is contraindicated in general debility - anaemia - concussion of the brain - severe injuries - low forms of fever - etc