Part Fifteenth.

BLEEDING.

There are many that may marvel at seeing a chapter on bleeding in a work written by a Homœopath, and intended for a Homœopathic text-book. It might be sufficient to call attention to the fact that there may be cases in which phlebotomy might be of service, without further argument. There are very many, however, who would be unable to select such cases, and some I fear who would unhesitatingly denounce the whole subject as a "relic of barbarism," and it will be necessary to give some good reason for presenting the topic, and endeavor to indicate clearly the nature of the emergency that might warrant the operation of blood-letting.

In standard works written by practitioners of other schools of practice, the methods employed and taught are various, including phlebotomy, arteriotomy, dry and wet cupping, scarification and the application of leeches. With but one of these have we anything to do, and even that is not employed as a curative agent, simply as a potent expedient in certain cases of great emergency. The proposal to treat inflammatory affections by the abstraction of blood, or relieve visceral congestion by counter-irritation, is as unscientific as it is useless. It is for no such purpose that phlebotomy has been retained in our surgical practice, and the necessity for its use can but very seldom arise; when the occasion *does* arise, however, the man is worse than a bigot, who for the

sake of consistency, as he interprets it—does not apply a ready remedy to save his patient from certain, or at least impending death.

I have already said that the abstraction of blood is not to be practiced to combat morbid action, particularly with a hope that inflammation will be cured or modified. For what purpose, then, may it be practiced? To restore the circulation in profound coma. There may be, and doubtless are—many students who do not have a clear conception of the distinction between coma, syncope, and asphyxia; for details they must consult the volume on "*Emergencies*," but we can say here, that while syncope expresses anæmia, or loss of sensation and will, from a loss of blood or a diminished supply to the centres of life, as the brain—coma represents a directly opposite state; viz: engorgement of the life centres, and arrest of function through stagnation or cessation of circulatory effort. In the first case, bleeding would be almost homicidal; in the second, its neglect would often be equally criminal. The chief difficulty that the mere therapeutist will encounter in cases of pure coma or asphyxia, will be the suspension of all the organic functions, to such an extent that absorption of the remedies given, by which alone their action can be developed, cannot occur. Something must be done to arouse the vital machinery. Faradaism, friction, and some of the various methods practiced to excite artificial respiration, may be practiced, and one or all of them, after patient effort, often, yes, nearly always—accomplishes the purpose. Occasionally they fail. What then shall the conscientious practitioner do? Leave his patient to certain death because bleeding was at one time grossly abused? I think not. My practice would be, although I am free to confess that the occasion never has arisen in my personal experience—to open a vein,

and abstract just sufficient blood to accomplish the purpose, *viz:* re-establishment of the circulation. With this solitary exception I can conceive of no condition in which blood-letting would be either necessary or desirable.

Having determined upon the necessity for the operation, the instruments are to be selected as follows: An ordinary thumb lancet, sharp and clean. In these days, and among practitioners of our school, it is not common to find the surgeon provided with a lancet. It is not indispensable, although, by far the most useful instrument, a bistoury, sharp scalpel, or even a good pen-knife answering the requirements. A narrow bandage must be provided, say half an inch wide and two or three feet long; this is to be used for the after dressing. Another small bandage, technically known as a "fillet"—is needed to encircle the part above the point selected, for the purpose of making the vein tense and more readily seen and controlled. This is usually nothing more than a piece of tape, sufficiently long to encircle the part once, and leave enough of the free extremities to tie securely. A knot may be tied in the fillet at the middle.

A basin or bowl will be needed to receive the blood, water and sponges at hand to cleanse the part after the operation, and the prudent operator will be provided with appliances to secure an artery, should he be so unfortunate as to injure one.

In our practice position will regulate itself, the operation being performed as a last resort, the patient being insensible and of course in a recumbent posture. The first point demanding attention will be, which vein to select for incision. Everything being equal one of the veins in the forearm are usually selected, the median basilic oftener perhaps—there being no preferance as to side of the body. By making

pressure with the thumb on the vein, if it becomes turgid below, it is favorable; if not, there may be some local condition forbiding a free passage of the blood through the vessel, and some other must be selected. The vein having been selected, place the knot of the fillet over it, and tie it firmly around the part. When the vessel below the point of constriction becomes sufficiently turgid, it may be opened in the following manner, and with indicated precautions.

When the artery of the part is not in the way, enter the lancet perpendicularly, holding it so that only a very small portion of the point is exposed, and as soon as its point has evidently entered the vein, indicated by the freedom of motion distinctly felt, depress the handle so that the point cuts its own way out, making a wound say from a quarter to half an inch in length. The direction of the incision is usually nearly in the direction of the long axis of the vessel, very slightly oblique. While making the venesection, the extremity should be grasped with the disengaged hand, the thumb making pressure on the vein below the print of entrance of the lancet, to prevent a gush of blood which may occur. The incision being completed, and the basin or bowl held in position, remove the thumb allowing the blood to flow. If it does not flow promptly, or does not run at all, make friction on the part, upwards, with some degree of force, to empty the deep veins. If the fillet is tied too tightly it may interrupt the arterial circulation, and the indication will be to loosen it sufficiently to permit the blood to flow. It must be remembered that under these circumstances the circulation is very feeble, and compression that would be trivial, at other times, may now serve to completely arrest it. Conjoined with friction, flexing and extending the hand and arm, should be practiced, the muscular action thus secured serving to force the blood from the deep to the superficial veins.

The question is often asked, how much blood shall be taken? The answer cannot be answered categorically. We may say sufficient for the purpose, which can be estimated by the effect. The intention being to re-establish vital action, the first symptom of success will be an easy flow of blood; next the patient will make one or two sighing respirations, the pulse will improve, and the eyes may be opened. At this point, the flow of blood must be arrested. The fillet is untied, the edges of the wound approximated with the finger and thumb, and drops of blood on the part washed off. A light compress of cotton is then applied, and held in position by a few turns of the roller previously prepared. The arm had better be carried in a sling for a day or two, or at least until the wound has closed—and all use of it prohibited. Remedies may be given according to circumstances, perhaps *Acon.*, will more frequently be needed, if the condition for which the venesection was practiced does not present some particular indications.

Should an artery be in close relation with the vein, the incision must be in such a direction that there is no danger of wounding it. For instance, the vein being over the artery, the former must be opened on the side; on one side, the lancet must be entered on the same side, above the vessel.

The accidents that may occur are few in number, but may be followed by very serious consequences. Those most commonly noted are thrombus, wounding the tendon of neighboring muscles, wounding of nerves, or puncture of arteries. Each of these will require especial mention.

Thrombus is a term applied to the formation of a clot of blood in the subcutaneous cellular tissue, due to an effusion of blood from the wounded vein, oftener on account of want

of care in securing harmony in the relations of the integumentary wound and that in the vessel. Occasionally from irregular tension in the skin, or an uncertain and hesitating manner in making the puncture, when the wound is closed the integument slides over the wound in the vein, and the blood cannot find exit. Probably in all cases there will be more or less of such effusion, but in the large majority of cases the condition is very trivial, and soon disappears. When the effusion is comparatively large, however, the matter may become serious, and unless care is exerted troublesome consequences may ensue. Thus suppuration may be established, and the vein partaking in the morbid action, acute phlebitis or even pyæmia come on. The indications are to keep the part at rest, even to the extent of putting in a splint—and administering *Arn.*, or *Ham.*, both externally and internally. The tincture may be applied, diluted in water, in the proportion of one to ten. When given internally as well, a dose may be administered as often as once in two or three hours. *Arnica* would be particularly indicated when the blood coagulates and forms a moderately firm clot. *Hamamelis* is to be used when coagulation is deficient, and the blood remains fluid, forming a sort of blood cyst. Should the effusion break down, and suppuration become established, an early incision must be made to give it a free exit, and the case treated as an ordinary abscess. When pyæmia or phlebitis occurs, the treatment must be in accordance with the principles laid down in the volume on *Surgical Therapeutics*.

Tendons are occasionally pricked, accidentally, or even transfixed by being mistaken for the vein. The accident is not a very serious one, although the pain and discomfort may be very considerable. The part is particularly painful on

motion, and the accident may induce tetanus, or even, in badly treated cases, result in loss of function in the part.

The *treatment* must be, place the part in a comfortable position, using a splint or sling to prevent motion. If the pain is excessive *Hypericum* must be used as laid down for *Arnica* above. Should the part be cold, and motion somewhat restricted from stiffness of the part, give *Ledum pal.*, the same way. Symptoms of tetanus will call for *Stram*, when there is twitching of the muscles; *Bellad.*, when the jaws becomes stiff, and the muscles contracted, or *Cupr.*, when there is severe pain under the sternum. More exact indications will be found laid down under the proper head, in both *Surgical Therapeutics*, and *Emergencies*.

Wounds of the nerves, to some extent at least, must occur in every operation for phlebotomy. The nature of the symptoms, and the indications for treatment, depend upon the extent of the lesion, and the character of the nerve, whether a sensory or motor twig. When the nerve is perfectly divided, there will be either loss of motion or sensation in the parts supplied, as the twig is sensory or motor. The loss of motion may not appear to the novice, as but a single muscle, or even a portion of a muscle may alone be affected. So also with sensation; the loss will be indicated by more or less anæsthesia, usually occuring in a restricted territory, and not at all times so prominent as to attract the attention of either the surgeon or patient. When the lesion is discovered, the part must be kept perfectly at rest, and *Stram.*, administered, a dose two or three times a day, for a fortnight or longer. If care can be taken to keep the part at rest so that the extremities of the nerve are not drawn too far asunder, union and restoration of function may be expected in about fourteen days, in the case of small branches. (*Vide Emergencies.*")

A *partial division*, however, will cause impaired motion, if a motor branch—or pain and hyperæsthesia, if sensory. The pain may be felt both at the point of injury and at the termination, usually it will be more continuous at the latter. Under either conditions I think *Hypericum* will be the remedy oftener indicated, giving place to others as special symptoms arise. The accident is more readily recognized than when the division is complete. Very frequently, when motor nerves are partially divided, the muscles will be spasmodically affected, either contracted (tonic) or jerking (clonic). *Stram.*, in either case, will usually be the remedy that will give the best results.

Arteries may be pricked, or even extensively wounded, and the accident will be at once recognized, not by the *color* of the blood, so much as the force with which the stream is ejected. On making pressure above the wound the hæmorrhage will be arrested, while distal pressure will produce no effect. The accident may be a very serious one, inducing dangerous conditions at the time, or secondarily by the formation of aneurism. The symptoms of wounded arteries, and the consequences resulting therefrom, are too important and numerous to receive attention at this time; a full account will be found in the proper place, under *Injuries of Blood-vessels* ("*Emergencies*"). Suffice it to say at this time, that notwithstanding the great authority of VELPEAU, we should never trust to a compress in hopes that a cure will follow. Even if the hæmorrhage should be permanently arrested, an aneurism, of some kind, will be apt to follow later, and the patient perhaps be in a less favorable condition for a radical cure. Secure the vessel at once, by ligation, or accupressure as is most convenient, and discard, in this instance as in all others, frivolous temporizing measures.

PART SIXTEENTH.

VACCINATION.

Vaccination is an operation for the introduction into the human system of the virus of the cow-pox, as a preventive of variola. Whilst eminently Homœopathic in principle, it has been employed very extensively by all schools of medicine, and is to-day the most common practice in every civilized community throughout the world. DR. EDWARD JENNER, an English physician, was the discoverer of the prophylactic virtues of this virus, and the first vaccination was performed on a boy in 1796. His attention was directed to the subject, while still a student, in 1763, from observations made in Gloucestershire, when it was the universal belief of the dairy people that those who contracted the vaccine disease from milking cows affected with cow-pox, would not contract small-pox.

Cow-pox is a disease, of contagious character, appearing as a peculiar eruption on the udder of cows, supposed to be partly due to atmospheric changes, and some errors in food. It appears in two forms, or probably degrees of severity—the differences being very largely in intensity of the symptoms. The constitutional symptoms are insignificant, although there may be much fever. The local symptoms are the eruption of pustules, irregular in size and distribution. The vesicles are first filled with clear serum, later assuming more of the pustular appearance, becoming umbilicated, depressed in the centre—and when undisturbed, drying up into a crust which