REMARKS ON THE USES OF BLEEDING IN DISEASES.

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The explanation of the mode of action of the venesection here given, may not be easy, but this forms no grounds for the rejection of it in such conditions of disease, provided the facts here stated be correct, and the inferences rightly drawn from them. If, indeed, these facts, viz., the congested heart and its relief by venesection in such cases, be admitted as results of experience truly interpreted, we may accept their practical deduction, without waiting for a satisfactory theoretical explanation of them. Neither is it necessary for me to observe, that there are congestions of the heart, and periods in the course of all congestions, in which no relief can be hoped for from venesection. Nor need I stop to say a word as to the amount of blood to be taken in any given case; for it must necessarily be different in every case, varying with the nature of disease and the condition of the patient.

I will, however, to prevent any possible misconception on this head, refer shortly to what, as I conceive, are the particular indications for its use in certain cases of pneumonia, and will also point out the special reasons, peculiar to this inflammation, which render venesection in the great majority of cases of pneumonia inapplicable, notwithstanding the existence of that condition of the heart, for which, as here supposed, venesection is of service. The chief special fact which gives to venesection in pneumonia a vastly different significance from what it possesses in most other inflammations, has been too much overlooked in this modern and recent blood-letting controversy. The lungs, we must remember, are the prime sacculating organs of the body. Unless the materials which supply blood are duly subjected to the searing process, they cannot become serviceable for the purposes of nutrition. The new materials added to the circulation cannot become blood unless subjected to this process.

But this blood-making process is necessarily arrested, and in proportion to the extent of the pneumonia, that is to say, in so far as a portion of the lung is hindered by the inflammation; and it is arrested so long as the inflammatory process lasts. Loss of blood, therefore, in relation to the extent and duration of the inflammation is, under such circumstances, an inevitable loss.

Now, it is evident, that the greater the extent of the inflammation, the greater must be the congestion of the heart, and consequently, according to the principles here laid down for bleeding, the more desirable should be the practice of venesection in such cases. But now comes in the special fact referred to, which contradicts the practice; and which tells us, that any temporary benefit thereby gained, will not compensate for the more permanent injury inflicted on the vital powers. And thus it happens, that the more extensive the inflammation, and the more urgent the symptoms, the greater is the danger of the venesection; in fact, just, in proportion as the bleeding is more required to relieve the heart, is the practice of it less applicable.

When the pneumonia is limited, the symptoms usually are not such as to require venesection; and it is a fact, that in such limited cases of pneumonia venesection neither is nor ever was practised, even in former times; though, if there really be any potential virtue in bleeding over inflammations, the practice seems as much called for in limited, as in more extensive inflammations of the lungs; and for this plain reason, that the possible destruction of even a very small portion of one of these organs is full of danger to life.

This is the reason which must be considered in reference to bleeding in pneumonia. The condition of the lungs which produces the congestion of the heart is not removed by the bleeding; it remains still in active force after the bleeding. The remedy, therefore, can only give very fleeting relief; and we have already seen the irreparable loss which large bleedings entail upon the patient. Bleeding here acts the part of the prodigal spendthrift. For a small present accommodation, a large draught is thereby made on the strength of the future state.

What, then, are the conditions of pneumonia, in which venesection is applicable? I think they are well typified in the case related above; and I would answer that it follows: Venesection is of service when the general symptoms have risen rapidly and are severe, and the inflammation is limited; when the urgency of the symptoms are, so to say, and in reference to expiry cases, one of the most outstanding symptoms, of the inflammation, as measured by the stethoscope, whenever the symptoms, in a word, are severe, and the stethoscope shows that the serating processes are not exclusively and seriously compromised.

I have already referred to the distinction which must be drawn between venesection and the local abstraction of blood; and, without attempting any theoretical explanation of the fact, I have taken it as undeniable, that the local abstraction of blood from an inflamed part is of service in reducing the most prominent signs of the inflammation, the pain, the heat, the redness, and the swelling. And I would now inquire whether this fact, observed in the case of external inflammations, may not be legitimately applied to the case of internal inflammations; just as we have argued of the effects of venesection over internal inflammations from what we observe of its effects in external inflammations. If so, then, we must follow, that the local abstraction of blood in internal inflammations will only be of service over those inflammations, in which anatomy teaches us that there is a direct vascular connection between the internal and external parts of the body. If the blood is not removed by the applying of leeches to the thorax in pneumonia is a common practice enough; but it is evident that leeches cannot draw blood directly from the inflamed lung, and that they cannot therefore act upon the pneumonia. How is it, then, that they so often give relief in pneumonia? Their beneficial effects may very reasonably be ascribed to the direct influence which they exercise over the pleuritis, which so invariably accompanies pneumonia. It is to the inflammation of the parietal pleura that the pain, which is thus relieved, must be ascribed; and between this layer of the pleura and the skin over the point there is a distinct vascular connection—the vessels which supply the one being in great part the vessels which supply the other.

Leeching, again, over the pancreatic region is not unfrequently practised in endocarditis. And if we remember, that not one drop of blood can be thereby removed from the endocardium; and surely experience—mean that large and general agreement in opinion, which alone gives value to a remedy—does not justify the practice. But experience shows us, that local abstraction of blood is very often of great service in pericarditis—the very frequent associate of endocarditis—be it remembered. How is this to be explained? Local pleurisy—i.e., inflammation of the pleura around the pericardium—always accompanies severe inflammation of the pericardium, and is not improbably, in most cases, the cause of the local pain. The absence of local pain, which is, indeed, common enough in pericarditis, may be reasonably explained by the absence of pleurisy. But when the pleurisy and the pain exist, we have a ready explanation of the mode of relief in the direct vascular connection above referred to—between the skin of the pleura and the pericardium. And it is also well known, that there is a direct vascular connection between the branches of the internal mammary, which in part supplies the skin over the precordial region, and also sends a branch to the pericardium.

No one, again, can doubt of the great ease often given by leeches applied over the abdomen in peritonitis; and here we have an explanation of the fact in the direct vascular connexion between the skin and the peritoneum. Local abstraction of blood by leeches, again, are of undoubtedly benefit in laryngitis; but as

1 I do not, of course, allude to that oppressive stifling pain, which is the consequence of the disordered action of the heart, resulting from the effects of the inflammation upon its muscular structures.
plied over the thorax in bronchitis, they are of no avail, and for a similar reason.

As every one's experience must have taught him, leeching and cupping over the liver in painful affections of this organ are very often unsatisfactory in their results; but sometimes the patient is benefited and the disease is wholly ascribed to the influence over the paretical layer of the inflamed peritoneum over the liver. The adhesions between the anterior and upper surface of the liver and the abdominal walls and diaphragm, so often met with in the dead bones, are proofs of the not unfrequent occurrence of such peritoneal inflammation, excited by the deranged condition of the liver.

I and I need not multiply, seem to me to point out to us the internal inflammations in which we may anticipate that direct bleeding will be of service; and also to explain why it so often fails to answer the objects anticipated from it in the cure of internal diseases. I am aware that we shall be told in answer to this, that, nevertheless, relief is very frequently found in practice to follow the abstraction of blood from the skin in cases of internal diseases, in which there is no vascular connexion between the skin and the internal part; and that a striking proof of this may be observed, for instance, in the case of cupping over the loins in affections of the kidney.

But I would ask, in the first place, whether the practice does not entirely fail to give relief; and, secondly, whether it is certain that the relief, when obtained, may not be often very fairly attributed rather to the rest and other remedies, always, and in most cases of necessity, coincidently enjoined with the.section of blood. Are the cupping and subsequent relief due to cause and effect in every case, or merely antecedent and sequence? This much is undoubtedly true, that the pain in question and the kidney affection are very frequently relieved with the local application of warm soaps, and, poorly by the use and abuse of most powerful of remedies in these diseases—rest and warmth. Nevertheless, I do believe, that cupping does sometimes, in diseases of the kidney, give local ease, though I could never satisfy myself that blood had an undoubtedly direct influence over the progress of the kidney disease. I account for the relief to the pain thus given by the leeches or cupping in this way: Inflamed organs very frequently excite diseased actions in the parts around them; abundant proofs of this have in the adhesions attending pericarditis, hepatitis, and pneumonia. It is, as I believe, to this irritated condition of the tissues around the kidneys, secondarily excited, that the loss of blood gives relief. To suppose that one drop of blood can be thus directly taken from those organs, is of course an entire, though, perhaps, not uncommon, delusion. The proof that the diseased condition of the kidney does excite changes in the parts immediately around the organ, is often in the hands of the pathologist; he not unfrequently finds the cellular tissue around the kidney firmly adherent to its capsule, and united by unmarked connections.

I shall, perhaps, be also told, that this explanation of the effects of blood-letting is of too mechanical a kind; and that it takes no account of that nervous element with its many influences, which necessarily takes part in the operation. I may be told that dry cupping relieves bronchial and renal congestions; that leeching at the epigastrum and abdominal glands relieves gastro-intestinal pains, that blisters on the calves of the legs relieve cerebral disorders, etc., and I will anticipate the objection by saying, that if such results do occasionally really follow as consequences of such antecedents, the truth of the main facts which I insist on are in no way invalidated. That irritation of the skin may set in a reflex way upon internal organs, is a fact beyond dispute; and that it may influence the circulation of the blood in internal organs through the medium of the vaso-motor nerves, is very possible; but the immediate application of irritation to the circulation of internal organs in disease, has yet to be demonstrated.

I have said nothing here of the change of type of disease, as explanatory of the modern views concerning veneral syphilis, nor of the subject would lead to a wide discussion; and because, if the views here sustained are correct, we have in them a sufficient explanation of the change in practice, without being forced to call in such an intervening deity to solve the difficulty. And, there is nothing else in this view of the question, rightly viewed, must have been of service in those other days, just as it is of service in these present days; it was not more requisite, then, in those cases or certain diseases, than it is now. The theories which men hold of the nature of disease, and the peculiarities of the aetiology of each, are in the broadest sense, determined by the time of the disease. The past, if I do not, of course, doubt the existence in many cases of defective volition or disordered imagination; I do not wish to erasure from our nomenclature the term "hysterical paralyzation"; but I