

# ON THE USE OF VENESECTION IN CASES OF HEART DISEASE.<sup>1</sup>

By BEDFORD FENWICK, M.D., M.R.C.P.,

ASSISTANT-PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES  
OF THE CHEST, PATHOLOGIST TO THE HOSPITAL FOR  
WOMEN, SOHO-SQUARE.

"It would be difficult," wrote Dr. Marshall Hall nearly sixty years ago, "to determine whether greater injury has risen in the practice of physic from undue or from inefficient bleeding. To neglect the full use of this most important of our remedies when it is required, or to institute it when it is not so, is equally to endanger the safety of the patient." When that celebrated teacher and practical physician uttered these weighty words, he could proceed to say: "It sometimes requires no little boldness to abstain from the use of the lancet. Bloodletting is not only the most powerful but the most generally used of all our remedies." How essentially and widely different our teaching and our practice is now need hardly be insisted on. A distinguished practitioner told me the other day that he had never drawn an ounce of blood or even seen a cupping-glass in all his life. A clinical teacher will name twelve drugs as useful in heart disease, but never once, perhaps, suggest a single leech. In fact we seem to shrink from the lancet as if it were an assassin's dagger, and to look upon the bleeding basin and the measuring tube as murderous relics of a bygone and a barbarous age. I verily believe that the whole question of venesection in disease has yet to be settled upon a scientific basis. I only hope to treat it as regards affections of the chest, and at present I would only draw attention to the immense benefit derived from its discriminate use in cases of heart disease. I hope then to be able to show that in venesection, rightly used, we indeed have a "most important," a "most powerful" remedy; and I need hardly add, perhaps, a most neglected and far from a "most generally used" one. It may not be altogether uninteresting to tell how this great truth was forced upon my attention; because, brought up like most men nowadays in the strictest sect of the anti-venesectionists, I frankly confess that I was wont to read accounts of how our fathers were bled semi-annually or oftener, with a sense of quiet satisfaction at our own much greater wisdom.

CASE 1.—Albert L.—was admitted into the London Hospital under the care of Dr. Andrew Clark, when I was acting as his house-physician. He was twenty-three years old and had suffered from rheumatic fever. On admission he was very ill. Stenosis of the mitral orifice and incompetence of the aortic valves with oedema of both lungs were diagnosed. There was very considerable dyspnoea and general oedema, but no marked cyanosis or turgescence of the jugular veins. The urine was very scanty, and despite all our remedial efforts did not increase in quantity. In fact the kidneys seemed "clogged." Digitalis, ether, and senega were given in a mixture three times a day. The bowels and the skin were kept freely acting. He was kept at rest in bed on restricted diet. The lungs certainly at first cleared up somewhat, but at the end of a month his general state was none the better, but rather the worse. Then the urine became scantier, the oedema increased, he became drowsy, and coma seemed supervening. I was going round the ward late at night and was just passing the man thinking to myself "no more to be done there," when it suddenly struck me to get a tracing of his pulse. In adjusting the sphygmograph the patient slightly roused, threw up his other hand and struck his nose heavily. It at once began to bleed. Thinking that in his state it could do him no harm and would probably stop at once, I put a towel under his cheek and went on with my work. Having leisurely taken about half a dozen tracings I removed the instrument and fixed my slides. I was then surprised to observe that the last one or two tracings were wonderfully steadier, more even and regular throughout than the first one or two. Involuntarily I went back to the bed. The towel under the man's cheek was soaked right through with blood. He must have lost at least twelve or fourteen ounces, and the bleeding must have been very rapid while it lasted, for it had now ceased. He lay

there looking at me wide awake and perfectly conscious, breathing quietly, with soft, slightly jerking pulse, and calmly said that he had had a good sleep, and felt better for it. Next morning I went in at an early hour to see him. He was sitting up in bed, and complained bitterly of being kept there. He said he had been passing urine all night long. His pulse was still soft, and his breathing quiet, and for him wonderfully easy. In less than a week the oedema was perfectly gone, his pulse was 80, his respiration 24, his appetite was becoming voracious; and he insisted upon returning home, feeling better, he said, than he had done for months. The ridiculous side of the story remains to be told. No one had noticed the bleeding except myself, and I never thought of naming it. I afterwards heard, however, that his rapid recovery was attributed both by himself and his fellow-patients to the mysterious clockwork operation performed on him that midnight by the magical sphygmograph.

Now, I venture to consider that this case is a very important one. Many practical physicians would, and do, say if there is great blueness of the face, or pulsation of the jugular veins, or such like evidence of obstruction to the passage of the blood through the right heart—bleed, to remove part of the excessive forward pressure. But there they stop; and here we had no cyanosis, no jugular distension. We had, however, evident blood stasis in the cerebral and renal organs; and it will not be denied, I think, that the epistaxis saved the patient's life. It is perfectly plain, therefore, that we imperatively need, and must have, some definite scientific principles laid down applicable to all cases of heart disease. In attempting to do this, which I cannot find has ever been done before, I deeply feel my own incompetency to the task, and, indeed, attempt it here not by any means with the hope of settling the question, but rather of raising it as a matter of the most vital interest to every patient with heart disease, and to every practitioner who may have to treat such a case. And first with regard to chronic valvular disease, of which we have naturally two great classes, those with contraction and those with insufficiency of the valves. In both classes we have one common sequence to ward off, the onset of dilatation; and one common danger to guard against, the occurrence of fatty degeneration of the muscular walls. I need hardly point out here that loss of blood is a most common cause of fatty degeneration, and that once this fatal metamorphosis has commenced dilatation rapidly ensues. I may, however, mention that I have observed that fatty degeneration seems to occur, as a rule, much earlier, and to a more extreme degree in cases of incompetency of the valves than in cases of stenosis of their orifices, from which it follows that we must bleed more carefully and less often in cases of valvular incompetency than in cases of stenosis. With regard, now, to the latter class. Common sense would almost seem to dictate the advisability of keeping the blood to be forced through an abnormally small opening abnormally small in quantity. Now, probably, every practitioner of any standing knows how cases of mitral stenosis, for example, may go on in comfort and fairly good health year after year, and yet always seem rather anæmic, and how a single indiscretion in diet, or a trivial attack of bronchitis, will so upset the evenly balanced circulation as to bring the patient in a few hours into grave peril of his life. I am firmly convinced that in such cases venesection is invaluable, and that on the slightest indication that the balance is trembling we shall only and alone do justice to our patient if we remove the cause by removing blood; and it is wonderful how little need be taken to give rapid and often long-continued relief. Therefore, having regard also to our foe, fatty degeneration, I would venture to suggest this clear rule—in cases of stenosis, if necessary, bleed at once; bleed often, if requisite, but take little each time.

CASE 2.—Mary R.—, aged fifteen, was admitted into the London Hospital in July, 1879, under the care of Dr. Andrew Clark, suffering from intense dyspnoea and cyanosis. The extremities were cold; there was considerable oedema of the legs. The urine was very scanty. The pulse was scarcely perceptible, though the heart's action was powerful. There was a presystolic thrill and murmur audible at the apex, and a systolic bruit at the base.

On July 10th, in addition to the above symptoms, she became very drowsy and hard to rouse, and it seemed probable that coma would supervene. She was bled from the right arm to the amount of four ounces and a half, when she roused herself and declared she felt much better. The breathing certainly was easier, and the lips became less blue, and the pulse softer and distinctly fuller. On the following

<sup>1</sup> Read before the Hunterian Society, March, 1882.

day, however, dyspnoea came on again, and she was bled from the left arm to three ounces, when she expressed herself as feeling much relieved. A rapid increase in the daily quantity of urine at once began, and the oedema quickly diminished. She, however, felt so well that, against orders, she got out of bed, walked about the ward in an undressed state, and caught cold. Acute bronchitis set in, and the dyspnoea returned. On the 19th she was accordingly bled from the right arm to three ounces, with great relief to the breathing. The bronchial trouble rapidly cleared up, and she declared that she felt better than she had done for months. I was now invalided myself, and she passed into the charge of a very able locum tenens. He, however, did not believe in venesection, and when on the 29th, after fresh exposure and a fresh cold, she sank into the same state as described on July 10th, she was not bled. She became comatose, and died the same evening.

The post-mortem revealed the accuracy of the diagnosis—a very extreme degree of mitral and aortic stenosis being found. As on every occasion when blood was removed, the patient was in urgent danger, and as each time only a small quantity was taken, and yet nevertheless each time with great relief, the whole case, I think, amply supports the practical lesson that I above pointed out. Latterly, I have only used leeches or cupping to remove blood directly from the cardiac region in cases where stenosis existed. I imagine that we obtain thereby more certain and more rapid results with a more accurate loss of blood than when venesection from the arm is resorted to. Still this is a matter of such great practical importance to the patient's welfare, and to our own success, that I feel bound to state distinctly some reasons for my judgment:—1. The patient, and the patient's friends, usually object less when leeching or cupping is suggested, than when "bleeding" is proposed, and they are less alarmed at a local application to the seat of disease than at the procedure necessary to open a vein and keep it bleeding. 2. The quantity of blood to be abstracted can be more accurately measured and controlled, and is generally much more easily obtained in cases of advanced stenosis by local than by brachial venesection. 3. Even as, like all practical men, I give a hypodermic injection of morphia at the seat of pain, although I cannot explain why its insertion there should give so much greater and more rapid relief than when introduced into the same blood at a distance, so I cannot explain why a little blood removed from the cardiac region should afford greater and quicker relief than is derived by the abstraction of even a somewhat larger quantity from the arm. I do the former and leave the latter undone in these cases, because I am convinced of the great practical truth that thereby greater good is gained.

CASE 3.—William H.—, aged fifteen, was admitted into the London Hospital, in 1880, suffering from contracted mitral and aortic orifices, dilated left ventricle, and bronchitis. A mixture, containing digitalis, ether, squills, and senega, was given. Absolute rest in bed and restricted fluid diet was ordered. He improved somewhat, but very slowly; but at the beginning of March he began to suffer from increasing dyspnoea, and became rather cyanosed. On March 4th his breathing was rapid; he was drowsy and hard to rouse; his pulse was scarcely perceptible; while his heart's action was laboured, heaving, and irregular; his face and hands were covered with a cold sweat; his breath was cool; he seemed moribund. I put a number of leeches on the cardiac region, and they were very freely fomented. When they had bled to about six ounces, he roused himself a little and said that the pain at his heart was almost gone. In an hour or two his pulse was 80, weak still, but decidedly fuller than it had been for days past. I now increased the dose of the infusion of digitalis from three to four fluid drachms thrice a day. And I may here say how often I have been astonished to find how drugs which had been given for days or weeks without apparent benefit, as soon as even a little blood has been removed, seem at once to assert their power again. The patient now rapidly improved. In a week he was out of bed; and on March 23rd he was discharged, feeling better, he said, than he had done for months past. I might easily multiply cases, but I think these amply illustrate the principle I desire to enforce.

With regard now to incompetency of the valves. Here we have, I believe, a more dangerous form of disease. For I am convinced that we have in such cases a greater tendency to the early occurrence of dilatation, and, therefore, of sudden death. And so it appears to me that we should only

bleed in such cases when there is urgent dyspnoea, or other evidence of danger. Further, that then we should bleed boldly from the arm till that danger is removed, and for fear of inducing a state of fatty degeneration of the already weakened muscular walls, that, if possible, the bleeding should not be repeated. For in this class of cases we do not want to keep up a permanent effect—that is to say, a constant restriction of the quantity of blood in the body; but we have to counteract, and suddenly may be, an imminent peril. That venesection, however judiciously used, is most beneficial in these cases is amply evidenced by such as the following:—

CASE 4.—Thomas C.— was admitted into the London Hospital on May 21st, 1867, under the care of Dr. Ramskill. On entering the hospital he was found to be suffering from aortic regurgitation, emphysema, and acute bronchitis. His urine was albuminous. At 3 P.M. on the day of admission his face and neck were livid; his eyeballs projected, and his lips were bloated looking. The veins of his neck were very much distended. His skin was perspiring and felt cold. His pulse was small, irregular, and quick. Respiration forty a minute, and his breathing was so laboured and quick that he could hardly speak. At midnight on the day of admission he was much worse; his face was livid, his breathing gasping. His face was covered with cold sweat, and his pulse could hardly be felt. He was bled to sixteen ounces, and at once he expressed himself as feeling relieved. His breathing in the course of an hour became much freer, and he was able to sleep a little. Next day he looked much better, he appeared altogether a different man. His pulse was still very irregular and quick, but his respiration was slower. He continued to improve and left the hospital very much relieved. He returned in two months in much the same state as before. He was bled to fifteen ounces, with considerable temporary relief, but died suddenly five days afterwards.

CASE 5.—"A costermonger,<sup>1</sup> aged sixty-two, was admitted, under the care of Dr. Herbert Davies, suffering from tricuspid incompetency and dilated right heart. He was extremely livid in the face; it might fairly be said to be of a purple colour. The superficial veins were dilated. The dyspnoea was so great that he could not lie down. He sat on the edge of the bed, nodding, in a kind of stupor, the whole day long. Expectorant medicines were tried without any relief, and the dyspnoea increasing every day he was bled to 14 oz. He expressed himself as much relieved, and there was a marked decrease in the lividity. The dyspnoea was much relieved. He felt so much better that he insisted upon being discharged from the hospital. After being out a few weeks he returned in much the same state as at first. He was again bled from the arm, and greatly benefited, and he left the hospital. After about two months he was again admitted, under the care of Dr. Andrew Clark, in even a worse condition than before. He was bled again, but without relief, and he died very soon after."

In each of these cases the post-mortem revealed considerable ventricular dilatation. Besides the above, Dr. Sutton quotes other illustrative cases, and Dr. Dickinson has recorded one in the Pathological Society's Transactions. I would, however, while fully recognising the great benefit obtained in the above cases, point out that a sudden death in each followed rapidly on a venesection. In private practice the chances would be that in such a case the fatal result would be laid on the doctor's shoulders; and therefore, for a double reason—for the practitioner's as well as for the patient's welfare,—the rule above suggested should be kept in mind till a better one is laid down for venesection in cases of valvular incompetency.

Next, with regard to acute pericarditis and endocarditis. I have not had the opportunity of using venesection in many such cases, but where I have done so I have invariably bled by cupping the cardiac region, and always with good result—so successfully, indeed, as to make me believe that if this measure be taken at the onset of the disease it will very often if not always cut the attack short, or at least greatly mitigate its severity.

CASE 6.—Thomas H.—, aged twenty-eight, was admitted under the care of Dr. Clark, suffering from dyspnoea and a slight grasping pain over the cardiac region. The heart's action was rapid and excited, and there was a rough, rubbing friction sound audible over the whole cardiac area. He was cupped at once to eight ounces, and expressed himself

<sup>1</sup> Medical Times and Gazette, Dec. 18th, 1869, p. 707.

greatly relieved. The next morning the heart's action was quiet and regular, the rubbing sound had completely disappeared, and no evidence of effusion having occurred ever showed itself.

Finally, with regard to that troublesome symptom in heart cases—pain more or less severe, more or less persistent in the cardiac region—I have found nothing give such complete and rapid relief as the local abstraction of blood. Whether the symptom arises from local hyperæmia or not I do not profess to know, but of the great practical value of the remedy here I am firmly convinced.

CASE 7.—A young gentleman was brought to me a few weeks ago. He had been seen by several eminent specialists, and was, as I afterwards found out, under the care of a justly distinguished practitioner. He had old mitral valve disease, but for some weeks past had suffered from extreme aching and often agonising pain localised to the cardiac area. I could detect no sign of pericarditis. The temperature was only 99° F. There was no tenderness on pressure, no herpes; in fact, there was nothing to account for the pain. His parents and friends were much depressed because blisters and poultices, ether spray and galvanism, and a host of other remedies and drugs had been tried, but without the slightest alleviation of the pain. I prescribed a mixture containing belladonna and digitalis, and recommended that he should be cupped to seven ounces over the cardiac area. I have since heard that this was done with complete and immediate, and till now permanent, relief from pain.

To summarise, then, I would conclude that:

1. In cases of valvular stenosis, if dyspnoea or pain or urgent symptoms be present, bleeding is generally useful; that it appears to be better to bleed often if necessary, but to take only a small quantity each time, and this by means of leeches or the cupping glass direct from the cardiac region.

2. In cases of valvular incompetency, if urgent dyspnoea or cyanosis or stupor be present, it appears best to bleed freely from the arm to about sixteen or twenty ounces if necessary, and if possible once for all.

3. In cases of acute pericarditis and endocarditis the attack may possibly be cut short by freely cupping the cardiac region at once.

4. In cases of cardialgia, without any evident cause, leeching or cupping over the heart's area will probably give relief.

West-street, Finsbury-circus, E.C.

## THE TREATMENT OF ACUTE CHOREA BY "MASSAGE" AND THE FREE ADMINISTRATION OF NOURISHMENT.

By JAMES F. GOODHART, M.D., F.R.C.P.,

ASSISTANT-PHYSICIAN TO GUY'S HOSPITAL, AND PHYSICIAN TO THE  
EVELINA HOSPITAL FOR CHILDREN;

AND

JOHN PHILLIPS, B.A., M.B.,

ASSISTANT-PHYSICIAN TO THE CHELSEA HOSPITAL FOR WOMEN,  
AND LATE RESIDENT MEDICAL OFFICER TO  
THE EVELINA HOSPITAL.

THE treatment of chorea has never been uniformly successful or flattering to the skill of the physician. When examined from the standpoint of the non-professional mind, there is not often any obvious relation between the drugs swallowed and the lessened muscular movements; and chorea drags its slow course along, disheartening alike the doctor and the parents of his patient. In all probability, what chorea has proved in the past with respect to treatment, so in many cases it will prove in the future. It is not a disease to which speedy cure is applicable or possible. It may almost always be improved, and considerably so by many forms of treatment. Still none are so satisfactory but what others may prove useful in properly selected cases, and thus it is that one is always willing to try anything new.

The object of this paper being purely a clinical one, the interesting question of the nature of chorea must be passed by; for present purposes we shall content ourselves by saying that it is a nervous habit, which, by neglect and nerve exhaustion combined, becomes aggravated into an acute disease.

Thus thinking, Weir Mitchell's plan of treating the nervous exhaustion of women as detailed of late by him and by Dr. Playfair seemed one that might possibly be productive of good results, and it has accordingly been carried out, perhaps not always quite strictly, in two cases that have been admitted into Guy's Hospital for that purpose, and in a series of ten cases at the Evelina Hospital. The Evelina Hospital cases constitute in fact the total of Dr. Goodhart's cases there during the past nine months, with the exception of three which suffered from heart disease and fever, of such severity that they speedily proved fatal—for such as these the treatment is not applicable—and four or five which were not of such severity as to afford a fair test of the treatment. Weir Mitchell's treatment, it will be remembered, in the case of women, is one of absolute rest, so far as voluntary movement is concerned; of the supply of nourishment in large quantity; and of the exercise of the skin and muscles, by what is now called "massage," but which let us call, as of yore, shampooing. It can hardly be called new as regards chorea, so far as the individual factors of it are concerned; perhaps there is more of novelty in the combination of these and in the aim which suggests it. Choreic children are the subjects of a faulty habit; are badly educated so far as their nervous system is concerned. Once choreic is to be always so, more or less, and it is education—practice, that is, in the art of muscular control—which such children require throughout life. But acute chorea is a bad habit and much more, and education under the circumstances of violent chorea is not only useless but harmful. The more a child is incited to voluntary muscular movements the more it moves choreically, and by so much tends to perpetuate the aggravation of its habit, and, as is well known, simple rest in bed will often much ameliorate the violence of the choreic movement. But to passive movement there are few objections, and for it may be claimed some very distinct advantages:—1. If carefully performed the muscles, flabby and poor in these children, become plump and healthy. 2. The various groups being manipulated in an orderly manner, some influence will probably be exerted towards restoring more equable nerve discharges from the centres which control them, and displacing a disorderly habit by an orderly one. 3. The supplies are utilised to their utmost without call upon the diminished capital of brain power.

Each case has been kept at rest in bed without other treatment of any kind for the first two days, in order that the amount of erratic movement under such conditions might be observed. Then shampooing has been commenced and feeding has been pushed in gradually increasing quantity, with the hope that a more healthy brain might be built up on the one hand and more regular habit induced on the other.

No one who knows anything of chorea will suppose that the success has been in all cases convincing, but some advantages may certainly be claimed for the treatment, and we think it is one which deserves a trial. The chief of these are:—1. A decided increase in weight. 2. Rapid subsidence of all the more violent movements, and it has happened that after two or three days' treatment a child quite uncontrollable has been able to sit up in bed, in a fairly quiet mind. 3. The extremities are no longer cold, and as a further evidence of the good influence on the circulation, the pulse falls and becomes more regular. 4. Shampooing is a powerful sleep producer; children as a rule sleep soundly after being shampooed. It might have been supposed that the patient would be frightened and dislike the treatment, but this has never been the case, nor has there at any time been any dyspeptic disturbance to indicate that the digestive organs have been over-taxed by the excess of work they have been called upon to perform. We make no statement with reference to the actual duration of the cases, because this is a treatment for chorea in the active stage; and when it has been successful there is still a range of lesser movement which must be covered by subsequent careful education, which must always make a prudent man chary in his use of the word "cure," and it will be better on this head to let each case speak for itself. For the rest, to Dr. Phillips belongs all the credit of carrying out the suggested treatment, and of reporting the cases in the most careful and elaborate manner, as will be seen from what follows.

We purpose to give a full report of one case, showing the course of treatment pursued, and the diet-tables used, and then to give an abstract of the remaining cases in order. On admission the patient is put into a padded bed. Milk