OBSERVATIONS

ON THE

TREATMENT

OF

VARICOSE VEINS

OF THE LEGS.

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Read April 16, 1816.

It seems to be established by the experience of modern surgery, that a mechanical injury inflicted on the trunk of one of the larger veins, is liable to be followed by inflammation of its internal membrane, and a fever of a very serious nature; and the occasional occurrence of these symptoms after the ligature, or even the simple division of the vena saphæna, has occasioned surgeons to be cautious in performing these operations for the relief of a varicose state of its branches in the leg.

But are the same ill effects likely to take place if a similar operation be performed on the branches themselves? Reflecting on the following circumstances, I was induced to answer this question in...
the negative. Varicose veins of the legs are so frequent in persons of the inferior order, (at least in this metropolis) that it cannot be otherwise, than that a considerable proportion of those who apply at the hospitals on account of wounds of the legs, must labour under this disease; yet I do not recollect an instance of venous inflammation following such an accident; neither has such an instance occurred among a great number of cases which have come under my observation, in which the varicose veins of the rectum forming piles, have been removed by excision or by ligature.

It was recommended by Celsus to destroy varices of the leg, by the cautery, or by extirpating them with the knife; and the same operations have been performed (though but seldom) by some more modern surgeons. The consideration of the circumstances, which have been just stated, led me to venture on the adoption of a practice somewhat corresponding (though not exactly similar) to that of Celsus. Finding that it was attended with benefit to my patients, and that no ill consequences ensued, I did not hesitate to repeat the experiment in a considerable number of cases. It is the result of my observations on this subject, which I have now the honour of laying before this Society; not in the belief that I am communicating surgical facts of the first importance, but hoping, nevertheless, that what I have to mention, will be found
not altogether undeserving the notice of the profession.

Where the whole of the veins of the leg are in a state of morbid dilatation, and the distress produced by the disease is not referred to any particular part; there seem to be no reasonable expectations of benefit, except from the uniform pressure of a well applied bandage. But not unfrequently, we find an ulcer which is irritable and difficult to heal on account of its connection with some varicose vessels; or, without being accompanied by an ulcer, there is a varix in one part of the leg, painful, and perhaps liable to bleed, while the veins in other parts are nearly in a natural state, or, at any rate, are not the source of particular uneasiness. In some of these cases I formerly applied the caustic potash, so as to make a slough of the skin and veins beneath it; but I found the relief which the patient experienced from the cure of the varix to afford but an inadequate compensation for the pain, to which he was subjected by the use of the caustic, and the inconvenience arising from the tedious healing of the ulcer, which remained after the separation of the slough.

In other cases, I made an incision with a scalpel, through the varix and skin over it. This destroyed the varix as completely as it was destroyed by the caustic, and I found it to be preferable to the use of the caustic, as the operation occasioned less
pain, and as (in consequence of there being no loss of substance) the wound was cicatrized in a much shorter space of time. I employed the operation, such as I have described it, with advantage in several instances; but some months ago I made an improvement in the method of performing it, by which it is much simplified; rendered less formidable, not only in appearance, but also in reality; and followed by an equally certain, but more speedy cure.

It is evident, that the extensive division of the skin over a varix can be attended with no advantage. On the contrary, there must be a disadvantage in it, as a certain time will necessarily be required for the cicatrization of the external wound. The improvement, to which I allude, consists in this: that the varicose vessels are completely divided, while the skin over them is preserved entire, with the exception of a moderate puncture, which is necessary for the introduction of the instrument with which the incision of the veins is effected. Thus the wound of the internal parts is placed under the most favorable circumstances for being healed, and the patient avoids the more tedious process, which is necessary for the cicatrization of a wound in the skin above.

For this operation I have generally employed a narrow, sharp-pointed bistoury, slightly curved, with its cutting edge on the convex side, such as
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is delineated in the annexed drawing. Having ascertained the precise situation of the vein, or cluster of veins, from which the distress of the patient appears principally to arise, I introduce the point of the bistoury through the skin on one side of the varix, and pass it on between the skin and the vein, with one of the flat surfaces turned forwards, and the other backwards, until it reaches the opposite side. I then turned the cutting edge of the bistoury backwards, and in withdrawing the instrument the division of the varix is effected. The patient experiences pain, which is occasionally severe, but subsides in the course of a short time. There is always haemorrhage, which would be often profuse if neglected, but which is readily stopped by a moderate pressure made by means of a compress and bandage, carefully applied. The same pressure which is necessary for the suppression of the haemorrhage, is useful, as it keeps the divided surfaces in contact, so that they may have the opportunity of uniting by the first intention. With a view to the more certain attainment of this last object, care should be taken not to divide very extensively the soft parts below the varicose vessels. If the edge of the bistoury be sufficiently sharp, a moderate pressure will answer the purpose required; and if the pressure be considerable, a wound much deeper than is necessary will be the consequence. With the same view, the patient should be kept for the first four or five days in bed, in a state of perfect quietude, and when the bandage which has been applied is
removed, this should be done with the greatest caution, lest any union which may have taken place be destroyed, in consequence of the uniting substance not having as yet acquired the due firmness of texture. By attending to these circumstances, an immediate cure of the wound is generally effected: where it is otherwise, no very considerable time is necessary for it to become healed by the process of granulation.

In every case, in which this operation has been hitherto performed, I have found it to be followed by the obliteration of the varix, and, indeed, it is difficult to conceive how it should fail in producing this effect. Sometimes no vestige of the divided veins has been to be distinguished afterwards; at other times they have remained for a certain period full of solid coagulum, which has gradually been absorbed. This difference probably depends on the different degrees of pressure made by the compress and bandage, and on the circumstance of the pressure being confined to the line of the incision; or of its being extended over the whole cluster of dilated veins. If there have been veins in a varicose state below those, which have been divided, and communicating with them, these have become contracted in size, and usually have presented no appearance of disease afterwards. The good effects of the operation have however been most apparent in cases of varicose ulcer. * In most instances, the pain in the ulcer has ceased immedi-
ately. When the ulcer has been of a moderate size, it has sometimes been found perfectly healed in a few days, on the first removal of the bandages;—when it has been of a large size, it has begun to heal rapidly, although it had made perhaps little or no progress towards amendment under the treatment which had been previously adopted. Where there has been a varix below the ulcer, the division of it has been attended with more relief than that of the varix above the ulcer in other cases.

Inflammation of the coats of the veins has not occurred in any of the cases, in which I have hitherto adopted this method of treatment. I have already observed that there are some reasons for believing that the venous branches are less liable to be inflamed, in consequence of mechanical injury, than the trunks, in which they terminate. But, perhaps, something is also to be attributed to the integuments over the wounded vein being left entire. It is not unreasonable to suppose that a vein under these circumstances is not equally disposed to take on the action of inflammation with one, which after its division is exposed to the contact of the air, or other extraneous substance. The difference of the injury corresponds to that which exists between a simple and compound fracture, and it seems probable that there should be, to a certain degree, a corresponding difference in the effects which are produced.
In two or three cases inflammation of the adipose and cellular membrane has taken place, producing pain and tenderness of the limb, and a slight degree of fever; but this has speedily subsided with only this ill consequence, that the wound has failed in becoming united by the first intention, and that the healing of it has been effected afterwards, by the more tedious process of suppuration and granulation. The treatment in these cases is very simple. Cold lotions may be applied in the first instance, for the purpose of moderating the inflammation. When suppuration has begun, the parts may be fomented and poulticed, and the ultimate cure of the small abscess which remains may be promoted by a moderate pressure made with strips of linen spread with soap cerate, applied circularly round the limb.

In two instances the operation has been followed by an attack of erysipelas; but this must be regarded as an accidental occurrence, there having been at the same time several other patients in the hospital, labouring under this disease.

Having made these general observations, I shall not intrude on the patience of the Society, by giving a detailed account of the whole of the cases from which they are drawn. From those of which I have preserved notes, I have, however, selected the four following, the relation of which, will be
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sufficient to illustrate the remarks which have been made, and to explain the circumstances connected with this subject, which principally demand the attention of the surgeon.

CASE I.

Mary Narraway, 45 years of age, was first admitted into St. George’s Hospital on the 12th of October, 1814; on account of pain, swelling, and ulcers of the legs, with many large clusters of varicose veins.

October 15. Two clusters of varicose veins which were larger and occasioned more uneasiness than the rest, situated on the posterior part of the calf of the right leg, were divided with the skin over them, by two incisions. There was considerable haemorrhage, which was stopped by the application of a bandage.

Some inflammation of the skin and cellular membrane took place after the operation, for which she was bled. The wounds made by the operation were not completely healed till after some weeks. She was then affected by an inflammation of the eyes, on account of which she remained in the hospital till the 17th of January. At this time there
was no vestige of the clusters of veins which had been divided, and the veins of the right leg generally were much diminished in size.

She was re-admitted into the hospital on the 31st of January, 1816.

She said that her right leg had been completely relieved by the operation, and that she had no uneasiness in it until three weeks ago; when a small ulcer took place on the inside, a little above the inner ankle.

At the time of her re-admission there was a very painful ulcer of the size of a six-pence, on the inside of the right leg, with some varicose veins above and below the ulcer. The whole of the posterior and outer part of the leg, from the cicatrix downwards, presented no appearance of varicose vessels, and was free from pain; but the pain in the ulcer on the inside was such that she could scarcely bear to stand in the upright position.

In the left leg there were the same clusters of varicose veins which had existed when she was in the hospital formerly, but somewhat increased in size, and a quantity of purple discoloured skin on the inside. She said that she had for a considerable time laboured under a painful varicose ulcer of this leg, which had at last healed under the use of adhesive plaster.
February 10. The cluster of varicose veins above, as well as that below the ulcer of the right leg, were divided in the manner described in the former part of this communication; the skin over them being left entire. The division of the veins occasioned considerable pain, which subsided in about an hour and a half.

February 14. On removing the bandage the ulcer was found perfectly healed. She was free from pain. The wounds made by the operation had healed by the first intention.

March 4. There was still a slight tenderness in the situation of the wounds; otherwise she was free from all uneasiness. There were no remains of the varices, which had been divided.

CASE II.

Anne Sadler, 38 years of age, was admitted into St. George's Hospital on the 21st of August, 1815, on account of varicose veins of the left leg, with a varicose ulcer of the inner ankle. She complained of great pain on the inside of the leg, which tormented her day and night.

On the 17th of September two large varicose veins on the inside of the leg were divided by
means of the bistoury introduced obliquely under the skin. One of these veins was situated about an inch and a half above the inner ankle, and the other about four inches higher, on the inside of the leg.

The wounds made by the operation inflamed so as to suppurate, and afterwards healed by granulation.

In the beginning of October the wounds were completely cicatrized; the ulcer of the inner ankle was skinned over; no vestiges were perceptible of the veins which had been divided. She was free from all uneasiness, except a very slight degree of tenderness in the situation of the wounds made in the operation.

October 9. She was discharged from the hospital as cured.

CASE III.

William Haines, 52 years of age, was admitted into St. George's Hospital on the 6th of January, 1816.

He had two varicose ulcers on the inner ankle of the left leg, one of the size of a shilling, the other smaller. These ulcers had existed for two years, and were exceedingly painful. There was a con-
siderable varicose vein below the ulcer, and another of a larger size above; extending upwards from the ulcers, to join the vena saphæna major. There were two clusters of varicose veins on the calf of the same leg, connected with both the saphæna major and saphæna minor; one of them of a very large size.

The veins of the other leg were varicose in many parts, but there were no ulcers.

January 13. The varicose vein below the ulcers of the left leg was divided in the manner already explained. The large varicose vein extending upwards from the ulcers was divided also, about three inches above the ankle.

The operation occasioned considerable pain, which lasted through the whole night.

January 14. He was more free from pain than he had been for a long time before.

January 18. The compresses and bandages applied at the time of the operation were removed. The ulcers were healed. The wounds made by the bistoury had united by the first intention.

January 19. The larger of the two varicose clusters on the calf of the leg was divided.
January 24. The bandages were removed. The wound made by the last operation had also united by the first intention. The leg was bound up in stripes of linen spread with soap plaster, and a bandage over them.

February 20. He left the hospital. At this time the veins of the right leg were in the same state as at the time of his admission. There were no remains of the veins which had been divided on the left leg: there was no vestige of the ulcers, and the discoloured skin round them had recovered its natural appearance. He was desired to continue the use of the bandage on both legs.

CASE IV.

Patrick Curley, 50 years of age, was admitted into St. George's Hospital on the 17th of January, 1816.

He had a varicose ulcer on each ankle of the left leg, not less than one inch and a half in diameter. There was an extensive cluster of varicose veins on the inside of the leg, above the ulcer of the inner ankle; and a smaller cluster on the outside, above the other ulcer. There was also a cluster of varicose veins on the calf of the leg. He had violent pain in both ulcers.
January 18. The varicose vessels on the inside of the leg were divided in three places, in the same manner as in the last case. The operation occasioned considerable pain, which lasted for four hours.

January 21. On removing the bandages, the incisions made in the operation were found to have healed by the first intention. The ulcers appeared more healthy. They were dressed with strips of adhesive plaster. He did not leave his bed until the 31st of January. He was now free from all uneasiness in the inside of the leg; but had a good deal of pain in the other ulcer.

February 20. The ulcer on the inside of the leg, below the divided veins, was almost completely healed. The ulcer on the outside of the leg was somewhat, but very little smaller. He complained of its being very painful, so as to disturb his rest at night. Three varicose veins were divided above, and one below the ulcer. The pain of the ulcer was immediately relieved, and he slept better on the following night, than for several nights previous.

February 24. He was unfortunately seized with erysipelas affecting the whole of the left leg, and attended with the usual constitutional symptoms. The erysipelas terminated in abscess, the matter of which it was found necessary to evacuate by three punctures in the foot and calf of the leg. When
the erysipelas had subsided, the ulcer on the inside had been completely cicatrized for a considerable time: the ulcer on the outside was nearly cicatrized also. There were no evident remains of the divided varicose vessels.

From the result of the foregoing and of many other cases, I am induced to conclude, that the operation which has been described, may be frequently employed with great advantage to the patient. At the same time I wish to be understood as recommending the adoption of it, not indiscriminately, but with a due attention to the circumstances of each individual case. The cases for which it is fitted, are, not those, in which the veins of the leg generally are varicose, or in which the patient has little or no inconvenience from the complaint, but those in which there is considerable pain referred to a particular varix, or in which haemorrhage is liable to take place from the giving way of the dilated vessels, or in which they occasion an irritable and obstinate varicose ulcer.