Records OF THE LOCK HOSPITAL.

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IV.—VARICOCELE.

PATIENTS, both in public hospitals and in private practice, constantly apply for advice with an enlarged and varicose condition of the spermatic veins. Sometimes these veins are enlarged, and remain in that condition for years, without being attended with much inconvenience. But at other times the mental and bodily distress produced is very considerable. Patients often have an impression upon their minds that the enlarged condition of the veins is here attended with want of power in the functions of the part. Nor is this impression always without foundation; for it frequently happens that, after the varicose condition of the veins has existed for some time, the corresponding testis becomes softer than natural, and sometimes it is permanently atrophied. Another, and by far more frequent symptom, is pain upon the affected side. This pain is generally in the dilated veins themselves; but sometimes it is referred to the testicle or to the iliac region.

These two symptoms, defective nutrition and pain, occur in other parts of the body when the circulation is retarded by a varicose condition of the vessels. It is not uncommon for persons with varicose veins of the leg to complain of pain, especially after having been in the erect position for some time. The dilated condition of the veins in such instances renders the valves* comparatively useless; and the vessels are distended by the continued pressure of the column of blood between themselves and the heart.

Imperfect nutrition, again, in consequence of a dilated state of the veins, is so frequently met with in cases of varicose ulcers of the lower extremities, that the subject at present requires no further illustration.

In whatever part of the body these symptoms—pain and imperfect nutrition—occur, in consequence of a varicose condition of the veins, they may be remedied in the same way; namely, by obliterating those vessels which are larger than natural, and by thus compelling the blood to pass by those channels only which retain their natural dimensions.

The plan adopted for this purpose is simple and effectual. A needle is introduced beneath the vein or veins to be obliterated, and a 8-ligature is passed over its extremities. The vein or cluster of veins is thus included between the needle which is below it, and the ligature which is over the skin. The ligature is then tied so as to produce a slight degree of pressure on the vein, and by this means its cavity is temporarily closed by acupressure. Another needle is then passed under the vein at about an inch distance, and the vessel is there closed in like manner. The vein or cluster of veins thus included between

the two needles is entirely separated from the rest of the circulating system, and may then be divided or otherwise obliterated without risk. Subcutaneous section of the veins is generally all that is necessary, and is preferable to any other mode of operating, as it effectually obliterates the vessels without leaving any open wound.

At the expiration of about four days, when union is established in the divided parts, the needles are removed, having served their temporary purpose. In three or four more days, the patient may usually go about his ordinary occupation.

The operation now described was first performed by me for enlarged veins of the spermatic chord some years ago, upon a patient in the Lock Hospital; and the success in that case was so complete that I have performed the same operation upon a very considerable number of patients since.

The following cases may be quoted as ordinary examples:—

CASE I.—Richard B., aged 23, was admitted into the Lock Hospital on the 8th of December, 1860. In the February previous, he first noticed that the veins of the left testicle were getting very large; at the same time he experienced occasional pain in the parts. When he walked fast or attempted to run, he felt pain in loins on the left side. He had a constant sensation of weight in the testicle, which hung very low. The operation (as above described) was performed on the day of his admission into the hospital.

Dec. 9. He had felt no pain during the night, but had experienced a slight "numb sensation," which had kept him awake. No fever, nor other indisposition.

Dec. 10. He felt perfectly well in health. The left side of the scrotum was slightly swollen and heavy.

Dec. 11. The needles were removed.

Dec. 12. There was a little increase of swelling, with slight redness round the openings of the needles. In other respects, he was quite well.

Dec. 18. He was discharged as usual.

CASE II. Joseph F., aged 24, single, was admitted into the Lock Hospital on the 8th of December, 1860. Eighteen months previously, he first noticed pain in the left side of the scrotum, the skin of which hung very low. The pain gradually increased in severity, and the veins of the spermatic chord became considerably enlarged. The operation, as in the previous case, was done upon the day of his admission. There was scarcely any loss of blood and very little pain was experienced.

Dec. 9. He had had a little aching pain during the night. No fever, nor other constitutional symptoms.

Dec. 10. There was slight swelling of the scrotum on the side of the operation.

Dec. 11. The swelling had subsided. The needles were removed. The patient expressed himself as feeling quite well, with only a little tenderness over the surface of the part operated upon.

Dec. 13. He was discharged as cured.

After an operation such as is now described, the divided veins become puckered up into a hard knot, which effectually prevents the veins from again becoming enlarged at this part. The divided veins are permanently obliterated, and the circulation is carried on by those that have not been interfered with.

The pain which arises from the distension of the veins ceases as soon as the union is complete; and in several cases in which atrophy of the testicle had

* Although the spermatic veins do not contain valves, yet the relations between a dilated condition of the vessels in this situation and the symptoms produced, are very analogous to those which obtain under similar circumstances in other parts of the body.

† This and the following case are reported by Mr. Ambler, formerly house-surgeon to the Lock Hospital.

taken place, a marked increase in the size of the gland has followed the operation.

There is one complication sometimes met with which the simple subcutaneous division of the veins does not remedy: this is a pendulous condition of the testicle. The testis sometimes hangs so low that it interferes with some of the motions of the body, and is liable to be injured by any sudden exertion. In such instances, there may or may not be a varicose condition of the veins, but the skin and subjacent tissues are always redundant. For this troublesome complaint, the late Mr. Briggs, in the old Lock Hospital, occasionally removed a considerable portion of the skin of the scrotum, and the cicatrix left maintained the testicle in something like its natural position. This operation succeeded well enough when the case was not attended with enlargement of the veins; but when it was, the removal of the skin could have little or no effect upon the varicocele. At the time to which I refer, no one thought of cutting deeper than the skin, as no means were then in use which would effectually control hæmorrhage from the spermatic veins in case they were wounded. Mr. Briggs's operation, then, was well adapted for a case of pendulous testicle where the veins were not enlarged, but not for a case accompanied by varicocele. A case presented itself some time ago, in which the testis hung so low, that when the patient lay upon his back, it would hang over on the outer side of the left thigh. There was, in this instance, a well marked varicocele. Knowing that I had the means by acupressure (which I have now employed in this way for upwards of eight years) of controlling the dilated veins, it appeared practicable to combine Mr. Briggs's operation with that for obliteration of the veins. Accordingly, the needles were introduced as far apart as possible, and, after the veins were secured by the 8-ligature passed over the ends of the needles, the intermediate portion of skin, together with subjacent tissues, containing the enlarged veins, was removed, leaving a very considerable gap. No hæmorrhage occurred. The needles were then drawn towards each other, and by this means the edges of the wound were brought together and maintained in position. The wound healed in about three weeks. The operation was performed on February 9th, and the accompanying woodcut is taken from a drawing made by Dr. Westmacott on the 18th of April following. It shows the varicocele permanently cured, and the testis maintained much in its natural position. (See Fig. 3.)

The operation for varicocele by simple subcutaneous incision has now been frequently performed; and the only inconvenience that has, in any instance, occurred, has been some hæmorrhage into the areolar tissue in the neighbourhood of the divided veins. This depends upon the fact that a vessel is sometimes divided which has not been secured by acupressure. In order to avoid this occurrence, care should be taken to compress the same veins above and below the incision, and not to divide any that are not thus compressed. If one of the spermatic arteries be divided which has not been included between the upper needle and its ligature, then some blood will escape, and a swelling will be formed above the line of incision; if, on the other hand, a vein be divided which is not included in the lower ligature, then the effusion of blood and the swelling will take place in the lower

part of the scrotum. The remedy in either case is the same. As soon as the swelling begins to appear, and there is good reason to believe that it depends upon effusion of blood, a fresh needle is to be introduced beneath the bleeding vessel, and 8-ligature passed round its ends. A very moderate degree of compression is sufficient. If it is an artery that is bleeding, the fresh needle is introduced above the subcutaneous incision; if it is a vein, the needle

Fig. 3.

must be introduced below this point. But in either case, care must be taken that the bleeding vessel is included. If, in the first instance, the needles and the incision are carried to the same depth, and include only the same vessels, then no hæmorrhage will occur.

In all the above mentioned proceedings, care must be taken to avoid the vas deferens. This may always be recognised by its peculiar hardness and irregular surface, and can be easily separated from the veins before the needle or the knife is passed beneath them.

FAILURE OF CHLOROFORM AND ETHER TO PRODUCE ANÆSTHESIA. "I administered ether," says Dr. Stoddard of Spring Prairie, "to a child aged seventeen months, in large quantities, and for a period of over an hour; and, being unable to produce the desired effect, tried a combination of ether and chloroform in the proportion of three parts of the former to one of the latter, which mixture I used freely for another hour, but could not get the child beyond the stage of excitement. I then tried chloroform alone for half an hour, but did not consider it judicious to persevere longer."