

ened part, by tightening the silver suture previously introduced, is brought forward, where it is firmly anchored by twisting the wire.

Since the nutrition of the bone in its new position is derived temporarily from the adherent soft parts, these are not disturbed until the bone unites in the new position. From six to eight weeks should elapse before plastic work on the lip and nose is undertaken.

By advancing the bone in this manner, the anterior segment of the alveolar arch is completed and the *alæ nasi* of the two sides rest on the same plane.

Of course the plastic work on the lip and nose must be skillfully done, but the principles here are well established and well known, and it would not become me to take more of your time with these. It is, however, well enough to dwell on the importance of early operations, always within the first years of life, and preferably within the first early weeks after birth, provided that *the nutrition of the patient is good or can be improved by forced feeding*; then, as soon as the patient is sufficiently improved.

When these cases are left to the sixth or twelfth year the muscles of the *alæ nasi* on the short side are partly paralyzed from disuse, and the nostril can scarcely be made to look as well as its fellow.

A NEW METHOD FOR THE RADICAL CURE OF VARICOSE VEINS.

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BY ERNEST LA PLACE, A.M., M.D.

PROFESSOR OF SURGERY, PATHOLOGY AND CLINICAL SURGERY IN THE MEDICO-CHIRURGICAL COLLEGE AND HOSPITAL; SURGEON TO THE PHILADELPHIA HOSPITAL; SURGEON AND PATHOLOGIST TO ST. AGNES HOSPITAL, PHILADELPHIA.

Varicose veins of the lower extremities are among the most persistent and tormenting afflictions of adult age, not only because of our comparative ignorance of the absolute causes of the condition in the majority of cases, but especially because in the few cases where the cause can be clearly made out, it is almost a matter of impossibility to remove it. Varicose veins are produced either by an increased blood pressure within the veins, or by a diminished resistance of the vessel walls, or both. Whatever be the special cause, the eventual result is nearly always the same—a permanent state of dilatation and consequent thinning out of the walls of the veins on account of the sluggish circulation and increased blood pressure. We know how this condition reaches its climax in a rupture of the vein, giving a serious hemorrhage on the one hand, or if the affected vessels be capillaries, the varicose ulcer is the result. It would be useless to go farther into the pathology of the condition than saying that the initial stage of the trouble is a trophic disturbance, sometimes hereditary and sometimes acquired. The vessels being practically in an aneurismal condition, the question underlying the rapid and effectual cure resolves itself into the principle of cure of an aneurism. This we know to be beyond discussion; the complete obliteration of the dilated blood vessel by mechanical means, by chemical means, or physical means, or two or more of these combined. Inasmuch as varicose veins are not only dilated but lengthened and thrown into loops and curves, the aneurismal tumors which result offer a very extensive area for the application of the various methods of obtaining the

obliteration of the veins. The walls become immensely thickened because of the migration of white blood corpuscles that have subsequently built fibrous tissue, so that there is no tendency for these vessels to contract; the skin has become irritated and eczematous, and at last the whole limb becomes more or less affected.

Of the various forms of palliative treatment we will say but little, as this appeals directly to our common sense and might be consistently adopted as an accompaniment of whatever form of radical treatment is used. All, however, consist in prescribing rest and some form of external support.

Of the radical means, the choice lies between acupuncture, ligature and excision.

In *Acupuncture* a flat needle is passed under the vein and a figure-of-eight thread is applied over the ends. This is done at short intervals, hoping to obliterate by coagulation the intervening section of vein. This procedure is tedious, complicated, very seldom accompanied by success, and exposes the limb to dangers of sepsis and embolism.

The Ligature is made by a small incision over the vessel and an aneurism needle passed around it threaded with catgut. This is done above and below the varicose spot and the ligature cut short.

Excision.—Excision is done in practically the same way. The vein is carefully dissected out, and being ligated above and below, the intervening portion is excised. Where any great length of vein is involved this is of course impracticable.

Molliere (211, March 30, 1890), employs a solution of 1 part of iodine, 9 of tannin and 200 of water, of which he injects a few drops directly into the veins with a view of producing coagulation. Ricard (100, Oct. 30, 1890). Phelps also advocates the multiple ligature of varicose veins being, however, fully aware of the strictly local effect, and of the recurrence of the condition. Goodwin (2, Oct. 5, 1889), advocates the injection of $\frac{1}{4}$ minim of carbolic acid into varicose veins, an Esmarch tube having first been applied above. Patterson (2, Sept. 25, 1890) after placing harelip pins, injects perchloride of iron. All of these methods are painful, tedious and so strictly limited in their application that complete relief would necessitate the same procedure over the whole area of dilatation, which would overtax the endurance of a patient.

Recognizing the deficiencies of these modes of treatment, we proceeded to treat the condition in a manner that would remedy it at once. The two great channels that drain the superficial venous circulation of the leg are the internal or long saphena and external or short saphena veins. These and their tributaries are the vessels affected in the varicose condition. The lack of support, or any other cause act simultaneously upon every branch of the vein. The long saphena vein commences in a minute plexus on the dorsum of the foot: it ascends in front of the inner ankle and inner side of the leg, behind the inner margin of the tibia. It drains all the anterior surface of the leg and the whole circumference of the thigh.

The external or short saphenous vein drains the posterior portion of the leg and empties into the popliteal vein between the two heads of the gastrocnemius muscle. This being the case it occurred to me that if obliteration of the varicose veins was the essential factor in the cure, it might be possible to

obliterate all the surface venous circulation by ligating the long saphenous vein at the saphenous opening and the short saphenous vein between the heads of the gastrocnemius. Blood stasis must necessarily follow and a certain amount of œdema. Elevation of the limb, and gentle compression with raw cotton and a flannel bandage soon overcomes this. Rest in bed adds the final requirement to what seemed to me *a priori* the ideal mode of obtaining a wholesale obliteration of all the varicose veins of a limb, hence the cure.

The first case operated upon was a very stout gentleman 54 years of age, who sustained a fracture of the left leg while in the army, and soon afterwards developed varicose veins in both legs accompanied by a varicose ulcer in the left leg. For twenty years this condition had existed and on the 12th of October, 1891, cocaine having been injected about the saphenous openings in both thighs the long saphenous vein was ligated. The vein can be found very easily, immediately under the integument and superficial fascia, one and one-half inches below Ponpart's ligament and one and one-half inches from the inner side of the thigh. The vessel is isolated and a silk or catgut ligature applied. The incision need not be more than one inch in length. A suture closes the wound, and it is finally sealed with a film of cotton and iodoform and collodion. The same operation was performed upon the short saphenous vein by making an oblique incision about two inches below the center of the popliteal space. The vein is generally distended and presents itself in the area that is thus exposed. These two veins were then ligated after the above fashion in our patient. There was immediately a hardened and distended condition of all the varicose veins, which were quite tortuous. A snug cotton compress and bandage was applied from the leg to the upper femoral region and the limbs slightly elevated upon pillows. The operation was not accompanied by pain and at no time subsequently but a sense of *tightness*, as he expressed it, all over the limb. On the third day the bandage was removed to observe the changes. The veins stood out plainly with a hard nodular appearance, easily comparable to a rope under the skin. All about them was a yellowish green coloration much resembling what occurs in an ecchymosis which is being absorbed; and which no doubt was due to some red blood corpuscles that had exuded through the distended stomata of the veins and which on disintegrating left their hematin in the tissues. In two weeks the patient was allowed to rise. The dressing had been renewed every three or four days, and no change or symptoms could be observed except a gradual hardening of the veins and simultaneous diminution of their size. At the end of the second week the patient felt quite relieved and walked about with comfort. The small ulcer on the left leg healed very kindly, after being curetted and covered with iodoform gauze. Since then, this patient has been engaged in superintending a coal mine near Scranton, Pa., and has lately written me that he feels perfectly well.

Of the sixteen other cases which it has been my privilege to treat, six had the operation performed on both limbs in immediate succession and ten on one limb only. Five were women and eleven were men. Whether the varicose condition was small or extensive the same operation was performed in each

case, and each time anæsthesia was obtained with a 4 per cent. solution of cocaine. The progress of each case was remarkable and constant, *except one*, presenting an almost identical course with the first case related. At no time was there any elevation of temperature. Eight of these cases were operated upon before my class in the Medico-Chirurgical College of Philadelphia, six at the clinics of the Philadelphia Hospital and five in private practice. Of those operated upon in the Philadelphia Hospital the one exceptional case mentioned above deserves special description:

The patient was about 45 years of age, a blacksmith. Having performed the operation several times before the class, I proceeded to operate upon this patient without further remarks and, making the usual incision, I failed to find the saphenous vein. The varicose condition was entirely limited to the right leg. I sought a long while for the saphenous vein without success, and was compelled to abandon the treatment of this case by this method, having concluded that there must have been an anomaly in the course of this vessel.

Of the sixteen patients successfully treated, I am in the position of hearing now and then from but seven of them, and last week they were still satisfied with their condition.

If these results are maintained indefinitely, and there seems to me no pathological or anatomical reason why they should not, we think that this is a distinct advance over the other method of treating this painful condition—methods which do not deal with the whole condition at once but are applied more directly to such portions of the veins as are distinctly varicose.

The advantages claimed for this method therefore are, first, it deals with the cases of varicose veins at wholesale; second, the operation if *aseptic*, is harmless, easy, and with the help of cocaine, painless; third, it achieves that principle which we know underlies the cure of all aneurismal or varicose conditions, viz: an ultimate obliteration of the impaired blood vessel. This is reached by coagulation of blood and gradual absorption of the coagulum, while sufficient white blood corpuscles have exuded during the period of distension to subsequently build fibrous tissue which will contract upon the obliterated vein; fourth, until now we are not aware of any relapse; fifth, a cure seems apparent in from two to three weeks.

DR. WYETH of New York—This seems to me an operation of considerable merit. But it has occurred to me that the writer neglected to call attention to the dangers of mistakes in diagnosis, as we well know this condition is often due to a compensation after obliteration of the femoral or popliteal. If in such a case we were to ligate the long saphenous, gangrene would be produced. I think it well to call attention to that point.

DR. LA PLACE—I thank Dr. Wyeth for his suggestion. Of course we wouldn't operate until we had decided the positive nature of the case. The surgeon is supposed to have previously studied the case and to have established the rationale of the treatment.

The Charitable Japanese.—Out in Japan the doctor never thinks of asking poor patients for a fee. A proverb among the medical fraternity of Japan reads: "When the twin enemies poverty and disease invade a home he who takes aught from that home, even though it be given to him, is a robber."