

ing of all deceivers. These two pieces of flannel, each one yard long, were cut from the same web, yet when placed upon the stretch one becomes eight inches longer than the other. This represents the difference in elasticity between that cut upon the straight and that cut upon the bias. In using a bandage of any kind, it should not be applied too tightly at first; it may require readjusting several times during the day, and should always exert most pressure upon the foot and ankle. The difficulty of adapting a bandage or stocking that can be worn with comfort and satisfaction is much greater when the vessel is situated above the knee than when it is situated below that joint; but, fortunately, cases of this kind, if not occurring in persons of too advanced an age, may usually be absolutely relieved by one of several operations to be referred to.

*Stockings.*—Another, and a serviceable support for those who are of the working class, and who prefer to wear a support rather than submit to operative treatment, is a stocking made of stout linen, laced down the front; the two edges are provided with eyelets, and one edge with a loose flap which, passing behind the lacing, protects the skin from what might be a source of considerable irritation. If the varicosity extend above the knee, a small piece of the linen is cut out of that portion of the stocking which would correspond to the anterior portion of that joint. The thigh piece of this stocking may take its support from an abdominal belt or a waist worn for the purpose. The front should be closed with three or four different pairs of laces, so that the pressure at any given point may be altered without interfering with the remainder of the stocking.

A thigh support of real value is made of stout merino, in the form of tightly-fitting drawers, attached above to an abdominal belt.

*Strapping.*—Where varicosity is confined to a small portion of a single vein, or to a circumscribed bunch, strips of plaster applied across the vein, or at right angles to the greater diameter of the bunch, removed at night and reapplied each morning, prevent distention and relieve pain.

*Exercise.*—In the absence of eczema, ulcers, extreme dilatation with threatened rupture, moderate exercise, if varied in character, is helpful. To vary the exercise, I should alternate walking with riding, walking upon the level with walking up and down hill.

*Massage.*—Upward massage to practise each night upon retiring is to be encouraged and persisted in. Many cases exhibiting œdema are much relieved by it, as are those in which pain is so severe as to preclude even moderate exercise.

Where extreme tenderness or a recent thrombus exist, it is needless to say that massage is contra-indicated.

The radical treatment aims at the obliteration, or removal, of the altered vein or veins. For this purpose caustics, injections, the ligature, and, lastly, extirpation or excision have been resorted to.

Before the days of Listerism, Vienna paste was applied over the dilated vein at points three or four inches distant, and at the end of fifteen minutes washed off with vinegar. In this way it was sought to render the opposite sides of the vein adherent and secure obliteration.

The injection of minim doses of pure carbolic acid into the vein, its upper end having been secured by a moderately tight bandage, and of solutions of iron or of alcohol and ergot, alongside the vein, have had their advocates.

The treatment by ligature has been one of the most popular. It is usually employed in one of three ways. By some it is introduced through an open wound, carried round the vessel by means of an aneurism needle, tied, the ends cut short and dropped, a single stitch closing the opening. The operation becomes more secure if the vein be tied at two points in each incision and divided between. In bad cases, upwards of thirty such incisions have been called for in a single leg. Others, again, in using the ligature, pass a flat needle beneath the vein while it is pinched up between the finger and thumb, then twist a figure-of-eight stitch over the ends of the needle, protecting the skin beneath by means of a little absorbent cotton or surgeon's lint. The needles should not remain in position longer than one week, and if inflammation result, they are withdrawn earlier. Failure is not infrequent, and there is always the danger of transfixing a vein.

The third method of applying the ligatures is credited to Dr. Charles Phelps, of New York. The ligature material used is cat-gut. The needle commonly used, the Keyes straight varicocele needle, is so constructed that the eye, situated near the puncturing end, is opened and closed by means of a slide. The catgut should be small enough to allow the knot to pass through the opening in the skin made by the needle, although there is no objection to leaving the knot outside.

The ligatures are introduced as follows: The selected vein with its surrounding skin is picked up between the thumb and forefinger, and the needle (armed with a ligature) introduced through the skin on one side. The eye of the needle is then opened and the ligature detached; the eye is closed again and the needle withdrawn. We have now a ligature passing from the point of entrance to the point of exit under the vein. The needle is now reintroduced (unarmed) into the same opening produced by the former puncture, and made to pass above the vein, that is, between the vein and integument, making exit at the point of