

THE TREATMENT OF NÆVI BY VACCINATION.

M. Marjolin recently advised at the Society of Surgery of Paris that the treatment of erectile vascular tumours in children, whatever their seat, should be commenced by vaccination. M. Blot (*Gazette des Hôpitaux*, Oct. 8), calls this in question. He thinks vascular spots have been confounded with erectile tumours. Vaccination may cure these marks, but is powerless against tumours. M. Tillaux is of opinion that it is capable of curing the tumours also; to operate on the surface of the skin is not sufficient in such cases, the tumour must be traversed by threads impregnated with vaccine matter. He cured lately in this way at the Lariboisière an erectile tumour of the size of an almond. M. Sée observed that not the summit but the base of the tumour should be vaccinated, and that it should be surrounded with vaccinal punctures. For a tumour of 2 centimètres thirty or forty subcutaneous punctures should be made. When a child has many such tumours, all should be treated, or the one neglected will be apt to undergo rapid development. M. Chassaing has seen the 'chapslet of vaccinations' twice fail completely. He fears erysipelas and troublesome hemorrhage, and thinks it better to adopt decisive measures. M. Tanner and M. Guérôt spoke of the occasional occurrence in newborn children of vascular points, which disappear if left alone, but which, if treated by cauterisation, &c., leave the cicatrix.

COMPRESSION AS A MEANS OF PREVENTING HEMORRHAGE.

Mr. George W. Callender (*British Medical Journal*, November 1, 1873) thinks there are some conditions in which the use of M. Esnard's plan for the prevention of hemorrhage during operations by encircling the limb or part with an elastic bandage is not desirable. Cases where there is any suspicion of local vein disease are of this class; so, too, are cases in which primary amputation is required for the crushing of tissues, as in such the torn veins are closed with clots which might possibly be displaced by the compressing bandage, and so pass into the larger vessels, causing embolism; and so also are cases of gangrene or of rapidly extending cellular inflammation. The expectation that the compression might prevent pain has been tested and has failed, but there is no reason to suppose that it engenders risk of the after-sloughing of parts, as of the skin-flaps after amputations. It may be serviceable in quite another direction,—as a compress in the immediate treatment of poisoned wounds. Dr. W. R. Kynsey reports (*Irish Hospital Gazette*, November 15, 1873) three cases in which this method was employed with great success: one of necrosis of tibia, one of amputation of a toe, and an excision of the elbow. There was no loss of blood, no necessity for the use of a sponge, and each structure before division could be easily recognized.

Dr. W. Thomson reports a case of amputation of the hand where the best possible results were obtained by the use of compression.

ON THE ELASTIC LIGATURE.

By PROFESSOR DITTEL OF VIENNA.

In dividing or entirely removing parts of the human body, there has been a general concurrence among educated surgeons as to the use of the knife; for, with this instrument in his hand, the surgeon can determine on his course of action, while at any moment he can give it the direction in which his object may be best attained. The knife will indeed always remain the established instrument, when *arces-en-fleche*, the *écraseur*, and the constrictor have long belonged to the class of operative measures laid to rest in the history of surgery.

And yet the surgeon is sometimes placed in circumstances in which he prefers a bloodless proceeding to the making of a wound; for example, when he has to undertake operations in cavities and canals which are out of sight, or which are so narrow that it is extremely difficult, if not impossible, to use cutting instruments within them, or when he feels uncertain whether he may be able to tie the bleeding vessels (as in fistula situated high up). In other cases, he will desire to avoid hemorrhage and the formation of large wounds in children or in old persons.

For a long time, in common with many other surgeons, I have removed naevi in children through the induction of artificial gangrene, by introducing insect-pins through the skin behind the vascular growth, fastening them all round with strong waxed threads, and strangulating the base thus, as it were, artificially produced. Around the single needles oval or figure-of-eight turns were thus made, so as to compress the vessels leading to the part, and produce gangrenous destruction of the tissues by arresting its nutrition.

In November, 1872, I was consulted by a rickety woman, who had with her her first child, five months old. It had, on its right temporal region, a roundish vascular growth, having a base from 2 to 2½ centimètres (about four-fifths of an inch to an inch) in diameter. I carried a strong insect pin through the base, and also two others, one on each side—three pins in all being thus introduced through the tumour—and over these I twisted turns of waxed thread in the way described above. As usual, I had to correct the shape of many pins which had become bent, before the affair was in the state which was desired. After some days, the circular ligature had cut into the part, and lay, with the needles, imbedded in the suppurating furrow. I should now have drawn the ligature tighter, to make the falling-off of the tumour more sure. There then occurred to me the history of a girl, aged eleven, who had fallen a victim to the refined wickedness or the extreme carelessness of an unkind step-mother. This child, Marie Kramer, was admitted into hospital on March 5, 1872. She had an extremely neglected appearance. Her hair, dirty and full of vermin, was fastened in a net; her face was pale, and her look timid. She answered questions imperfectly and with hesitation, manifesting, evidently, that she felt herself in fear. Her statement that she had not removed her hair-net for about a fortnight, in consequence

of the order of her mother, was not absolutely believed. As she complained of head ache, the head was more carefully examined; and I found, in the part corresponding to the edge of the net, a suppurating furrow, at the bottom of which, after carefully washing away the purulent scabs, I discovered the fine elastic thread with which the hair-net had been fastened. This thread was visible in some parts; in others it was deeply imbedded and overgrown with granulations; and in some parts it lay deep in the corroded bones, especially the occipital and right parietal bones, where it had penetrated as far as the inner table. Although the furrow very soon granulated under ordinary treatment, symptoms of meningitis appeared, and she died on March 21.

The necropsy showed not only a high degree of general anemia and meningitis, but also a sloughing of the dura mater at the points where the loss of substance in the bone was greatest. The furrow in the soft parts corresponded with a furrow in the bone below the occipital tuberosity; reaching on each side over the tuberosities of the frontal bone, and thus forming a complete circular furrow in the skull. The furrow formed an almost complete chasm in the bones, so that the portion of skull lying above the furrow was connected with the bones below it only by means of remaining bridges, the whole length of which was ten or twelve centimètres—the circumference of the head at this part being forty-two centimètres.

From this act of base wickedness (for I found on inquiry, that the step-mother had not allowed the child to loosen the hair-net), I learned that an elastic cord is excellent for use in the division of tissues. And now, instead of tightening the thread in the case of my little patient above-mentioned, I applied a caoutchouc drainage tube all round the pins. Eight days later the mother brought in the child, which had borne this ligature much more easily than the thread. The vascular growth had fallen off; and in its place was a healthy granulating surface, the circumference of which was already beginning to be covered with a cicatricial membrane. This result led me to make further researches with the drainage-tubes; and I have since then used them in the treatment of nevi, fistula ani, prolapsus ani, sinuses, cancer of the breast, and in the ligature of arteries.

The proceeding is easy, but it requires a certain care and precision, which may soon be acquired by patience and attention. The operator must avoid giving unnecessary pain through pulling the cord too tight and dragging on the part, by having the part to be tied supported or held up by an assistant. The ligature must, of course, be drawn tight, and tied with two knots. The pain produced by the tying is altogether not great, in many cases very trifling, and scarcely ever lasts more than an hour. It is self-evident that the depth of the furrow produced depends on the degree to which the cord is tightened, and on the resistance of the tissues. It is probable that the ligature may be applied less tightly than I have done from fear of failure, as the pressure is continuous until the elastic cord has regained its