

HOLGATE. (T.H.)

THE
TREATMENT OF NÆVUS

BY
THE INTRA-INJECTION OF ALCOHOL.

BY
THOS. H. HOLGATE, M.D.,
Attending Physician for Diseases of Children, Out-Door Department, Bellevue
Hospital, New York City.

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THE TREATMENT OF NÆVUS BY THE INTRA-INJECTION OF ALCOHOL.

IN perusing the literature on the treatment of vascular nævus for the past twenty five years, it will be found that, in order to cause a metamorphosis or removal of the vascular structure, the treatment has been various, and has, I think, kept pace with the advancement of the science of medicine generally, as will be observed from the methods of treatment used, which will be named in their order as I have gathered them, from year to year, from the medical press, beginning with the local application of a strong solution of the perchloride of iron. The compound tincture of iodine locally applied dissipated two cases which were small in size, but it did not succeed in those of larger dimensions.

Dr. Cumming used a plaster of tartar-emetic, one gramme to four of galbanum plaster, and succeeded in eight cases. Collodion and collodion with corrosive sublimate has been used successfully, and others have been destroyed by pencilling the surface of the nævus with creosote. Vaccination on the nævus has been resorted to with varying success. Caustic potash and strong nitric acid have been used, but leave a scar, which is not unfrequently as unsightly as the growth which was sought to be removed. Injection of the perchloride of iron into the structure has been successful, but is not without danger, as will be observed from the case of nævus on the nose of a child treated by Dr. R. B. Carter in this way in 1865, with ten minims of the preparation, resulting in instant death. Although usually successful, others have had similar experience in its use.



The passing of setons through the growth has cured some cases, and others have been cured by ligating the tumor beneath pins passed through it.

Excision has been resorted to, but is objectionable, on account of the excessive hemorrhage which occurs and the unsightly scar which is not unfrequently left. The double ligature has been used, by passing it through the tumor and tying it in halves, then surrounding the whole with another ligature. Passing needles heated to a blood red through the tumor a line apart, has been practised successfully, and the actual cautery has removed others. Making an incision into the tumor, cutting it out piecemeal with scissors, and controlling the hemorrhage with pressure, has been successfully practised. The passing of sutures soaked in a solution of perchloride of iron through the tumor has proved effectual, and also the injection into the tumor of a solution of tannin. The repeated injection of two minims of carbolic acid has cured some, and the electric cautery others.

The *écraseur* applied beneath harelip pins has successfully removed some, and painting twice a day with glacial carbolic acid with just water enough added to make a solution, or water four grammes, glacial carbolic acid thirty-two grammes, has proved curative. The elastic ligature applied beneath harelip pins passed through the tumor has proved effectual in removing them; also repeated scarification followed by a compress. Forty cases have been reported cured by electrolysis. The passing of a silver wire around the *nævus* beneath the skin and bringing it out at the point of entrance, then tightening the ligature by degrees, has been practised, and causes the tumor to subside without a scar.

Dr. Bligh recommended painting daily with liquor plumbi subacetatis, and says it will cure in from one to two years, depending upon the size of the *nævus*. Dr. Little succeeds by making punctures in the *nævus* one-sixteenth of an inch apart, and Dr. E. Owen and Mr. Coates by injecting the tincture of iodine.

The application of the ethylate of sodium, and also of the ethylate of potassium, introduced by Dr. Richardson, either of which will prove successful, by acting upon the part as a

caustic, and is to be applied locally, from time to time, until the cure is effected. This, I believe, is the latest, excepting the one to be introduced to your notice to-night.

Mr. George C. consulted me on November 5, 1885, in regard to a vascular nævus on the external and lower aspect of the right ala nasi of his son, aged four years, which in size was about half that of a filbert, and gave to the child a very uncomely appearance. At birth it was a small port-wine mark, on a level with the surrounding skin, after which it gradually increased in growth to the dimensions named, and became pendulous at the lower margin of the ala. It had on several occasions bled quite profusely from the pendulous margin, the parents having found no little difficulty in arresting the bleeding. It was soft and compressible, but, on removing the pressure, it immediately resumed its former size.

On the 17th of November, Mr. C. brought his son to have the nævus removed. It being located in so prominent a position, and not desiring so to operate upon it as to leave a scar, being in a difficult position to exert pressure upon the part by mechanical means to arrest hemorrhage if the method of scarification was adopted, I determined to try injecting the nævus subcutaneously with ninety-five per cent. alcohol, and applied a clamp—as is used for operations on tumors of the eyelid—around it to arrest the circulation, then, with a hypodermic syringe needle, passed into it through its centre longitudinally near its base, I injected from five to seven minims of rectified spirit of wine, gradually withdrawing the nozzle or needle of the syringe as the injection proceeded, the result being the entire solidification of the tumor.

On the 30th of November the nævus had become softer and considerably shrunken, when I passed the needle of the syringe into the upper part of the tumor near its base, and again injected alcohol, in order to coagulate the blood in it and induce adhesive inflammation in the vessels at the source of its supply without again putting on the clamp. The tumor, as before, hardened, and the skin for some distance around it became pale. No untoward symptoms followed, the skin soon resumed its normal appearance, and on seeing it again on February 9, 1886, it was found to be reduced to one-eighth of

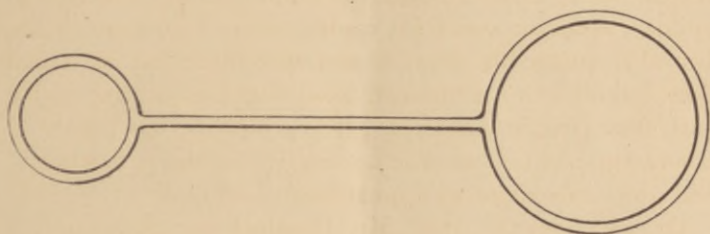
its former size, at which time and on April 21, in the same year, it was again injected. The ala nasi is doubtless the most difficult part of the surface of the body on which to treat a nævus in this way. On account of the sparseness of cellular tissue beneath the skin, the blending of the skin so closely with the cartilage, and the part operated upon having so nearly resumed its normal condition, it was with difficulty that the needle of the syringe could be passed into or beneath the skin, consequently the two last operations were not as markedly successful as the ones previously, the tissue being less redundant and more difficult of penetration; the nævus has been so reduced, and the skin covering it, it will be observed, has so nearly resumed its normal appearance, that an ordinary observer would not readily notice a difference in the two alæ, unless his attention was specially called to it, and that without other treatment, excepting the painting of the part, from time to time, with glycerin during the process of absorption, and no scar is left, excepting in the part where it had previously ruptured spontaneously and bled.

On December 10, 1886, Mr. P. called my attention to a nævus on the anterior aspect of the chest of his boy babe, aged two months, which at birth was little more than a port-wine mark, but rapidly developed into a vascular nævus, in dimensions nearly the size of the one last named. I exerted pressure around this by encircling it with a ring, in order to arrest the circulation to and from the part during the process of injecting the alcohol, and but one injection into the nævus was given. I gradually removed the pressure shortly afterwards. The injection not only arrested its growth, but caused its disappearance as a tumor. At this date, January 20, 1889, it is level with the surrounding skin, and three-fifths of the surface has resumed the normal color of the skin; the remaining two-fifths has the usual port-wine color, which the mother thinks is gradually disappearing, and the operation has left no scar.

I saw the case again, a few days ago, and found the remaining telangiectasis slightly increased, having encroached upon the part cured, and also upon the skin beyond the growth, as will be observed from the stated condition on January 20, and

its condition now, April 11. The child since the former date has had scarlatina in a mild form, which may have had some influence in arresting its favorable progress, or the effect of the operation may have expended itself. Whatever the cause may be, I do not look upon it as lessening the efficacy of this method of treatment. The remnant, as I have stated, is a mere port-wine mark, and can be removed by further injections or by very superficial scarification. I propose, however, to recommend the external application of alcohol to it twice a day, and, if successful, I will report it in future.

I present to your notice an instrument having a ring at each end,—one six and the other eleven lines in diameter,—



which an ingenious person can make from an ordinary knitting-needle, by which all the pressure needed can be exerted around a nævus during the injecting process, and I would recommend its use in all feasible cases, as it confines the alcohol and prevents it from being diffused for the time being further than within its confines, and causes it to have a more powerful effect upon the fluids and tissue within its area; and the alcohol, by contracting the vessels beyond the nævus, more effectually prevents any coagula therefrom entering into the general circulation.

In treating nævus of larger dimensions more than one injection could be given at the same sitting, or at short intervals of time in different parts of it; the absorption in one part could be taking place while another part was being prepared, bearing in mind the effect of alcohol upon the system. This method has the advantage of being easy of application, and there are few practitioners who are not possessed of all the material needed; if not, it is readily procurable, and with

ordinary care it will, I think, not prove dangerous. In stating this, I have reference to necessary care being used that the syringe is perfectly void of air before injecting the agent. I have not tried this in the treatment of goitre, but believe, from its effect in these cases, that it may be tried with a reasonable hope of success.

I have no knowledge of the treatment of nævus by this apparently easy and efficient method previous to the cases here recorded and presented, and will be pleased to learn the result, through the medical press or otherwise, from others when it is more generally used.

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WM. PERRY WATSON, A.M., M.D.,

Attending Physician to St. Francis's Hospital and to the Central Dispensary (Department of Pediatrics);
Consulting Physician to St. Michael's Orphan Asylum, etc., Jersey City, N. J.

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