TREATMENT OF VASCULAR NÆVI WITH INJECTION OF 2% SODIUM MORRHUATE FROTH.

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Injection treatment for varicose veins by means of various sclerosing solutions, quinine urethane, sodium salicylate, sodium morrhuate, etc., is now established therapeutically, and the same solutions may be used to set up a chemical or aseptic inflammation resulting in thrombosis and sclerosis in veins and other structures elsewhere. The main drawback to the use of these solutions in vascular nævi is that when used in the ordinary way, in the same strengths as advocated for treating varicose veins, there is a definite risk of ulceration and sloughing with the formation of an unsightly scar.

I have treated six cases of raised vascular nævi (four on the scalp, one on the bridge of the nose, and one on the side of the leg), with injection of 2 per cent. Sodium Morrhuate Froth. My reasons for choosing this particular preparation were the following:—

1. Sodium morrhuate is the sodium salt of the purified, unsaturated fatty acids extracted from cod liver oil, and, therefore, forms a soapy froth with distilled water when suitably mixed.
2. When used as a 2 per cent. solution it is not very liable to cause sloughing of the tissues, as when given subcutaneously in 3 per cent. solution for treating tuberculosis.
3. By making a froth, the solution can act over a larger area, and the resulting compression of the tissues helps to obliterate the veins in the nævus.
4. Lastly, it is a simple method, and does not require any elaborate paraphernalia, etc.

Technique.

Withdraw the requisite amount of sodium morrhuate solution (usually supplied in 5 per cent. or 10 per cent. solution with 0.5 per cent. phenol) and mix it with the necessary amount of sterile distilled water in a sterile minim measure or convenient receptacle, proceeding to draw the mixture in and out of the syringe quickly, so causing it to form a froth, e.g., 1 c.c. of 10 per cent. sodium morrhuate solution plus 4 c.cs. of distilled water equals 5 c.cs. of 2 per cent. sodium morrhuate solution.

I use a 5 c.c. syringe with an eccentric or lateral nozzle, such as is used for intravenous N.A.B. injections, with a size 14 Record needle. The injection is made with the opening of the syringe uppermost, with the idea of giving the froth first, and any slight amount of fluid that may have formed last.

As it is very difficult to keep a baby absolutely still whilst giving the injection, light anæsthesia is required for a minute or two only, but if on the leg, or where it is possible to hold the part steady, this might be dispensed with.

The site of puncture is prepared by cleansing with trichlorethylene, followed by painting with surgical spirit.

The injection is made into the centre of the nævus tissue avoiding entirely blood vessels, and the needle is moved generally in four or more directions inside it whilst doing so, in order to cause a more even distribution of the froth. The amount of froth to be injected must be gauged by the size of the nævus to be treated, and should be enough to distend it fairly well.

The site of the puncture is sealed with a small piece of zinc oxide plaster, which is removed in 12 hours.

Illustrative Case.

The following are details of a case illustrative of the method of treatment and result:

Baby M. R., first sent to see me when aged 11 weeks by Dr. S. N. Davison of Ashby de la Zouch. Then had a circular vascular nævus, having a size of a threepenny piece in diameter and raised about one sixth of an inch above the scalp, and situated in the middle line over the fore part of the anterior fontanelle.

As nævi sometimes disappear spontaneously, and in view of the proximity of the lesion to the fontanelle, I considered it desirable to wait till this had ossified somewhat, so that there would be less risk of the injection causing meningeal irritation. Consequently, I advised postponing the question of treatment till the child was about ten months or more old, when it was again brought to me. At this time the nævus was larger and more prominent than formerly and showed no evidence of spontaneously clearing away, hence I decided to give the injection which I did as described above.

Following the injection there is usually marked reaction with distension of the nævus tissues and often the associated veins stand out quite prominently. In this patient the vein to the left supra-orbital foramen became as prominent as a whip-cord within a few minutes of the injection being made. A fortnight later everything had quietened down completely and the lesion commenced to slowly flatten out and disappear. One should therefore not be in too great a hurry to repeat the injection, as the sclerosing action continues for some time afterwards, and the tissues gradually shrink. In this case cure was complete in $2\frac{1}{2}$ months.

One great advantage of this method of treatment for vascular nævi of the scalp compared with radium rays, is that with the latter the hair follicles are permanently destroyed when treated by the ordinary method. Obviously this is not welcomed especially in the case of a girl. I believe that with very small doses of radium, frequently repeated at long intervals (Stockholm technique), this risk is minimized. I need not enumerate other more obvious gains, such as financial, ease of obtaining the requisite materials, etc., for the treatment above described.

P.S. I am now experimenting with methods of making the sodium morrhuate froth into a more permanent mixture and find sterile gum acacia solution a good medium.