Clinical Lecture

DELIVERED AT

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BY

JOHN ERICHSEN, Esq.,

PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE, AND SURGEON TO THE HOSPITAL.

NÆVUS.

GENTLEMEN,—Nævus is, perhaps, the most common congenital malformation or disease requiring surgical interference, and probably the most frequent cause of operations on young children. The methods adopted by surgeons for the removal of this affection are very varied; but however much they may differ in detail, they are all referrible in their mode of action to one of three principles, viz., 1. Those means, such as the seton, subcutaneous section, vaccination, and the injection of various astringents, which act by exciting inflammation, and eventually induce plugging and obliteration of the vascular network that constitutes the nævus. 2. Caustics, the electric and the actual cautery, which act by destroying the morbid structure. And, 3. Its removal by means of the knife or ligature. Now it is not my intention to-day to enter upon a general description of these different methods of treatment, but my object is to endeavour to point out to you how they require to be modified according to the situation and nature of the nævoid growth. Instead, therefore, of discussing those *principles of treatment* which are applicable to nævus generally, I will endeavour to render the subject more simple and practical by bringing before you cases and observations illustrative of the treatment of nævus, according to the region it occupies.

Nævi of the Scalp are more frequent than in any other situation, except, perhaps, the face. When occurring on those parts that are covered by hair, they are almost invariably prominent and subcutaneous; when seated on the forehead, or on the bare skin behind the ears, they are often cutaneous. The ordinary subcutaneous nævus of the scalp is readily removed by the application of the quadruple ligature. In performing this little operation, it often becomes a question as to whether any of the integument covering the growth should be preserved. In general, I think it better not to attempt its preservation. It is true that when removed, a clean white cicatrix is left which never covers itself with hair; but this contracts, and in after-life becomes but little visible. If you attempt to dissect down the skin that covers the nævus, you will find the operation not only troublesome, but attended by a very considerable, and possibly a dangerous amount of hæmorrhage. Those flat nævi that are situated behind the ear are here treated, as in the case at present under my care, by the free application of the fuming nitric acid.

Nævus of the Fontanelle is the most important variety of the scalp nævus, and constitutes a somewhat formidable disease. You see, as in the case of a child nine months old which we lately treated, a large purple tumour situated within the anterior fontanelle, rising and falling by the pulsations of the brain communicated to it, and becoming distended and tense when the child cries. The tumour is evidently close upon the membranes of the brain, and may be looked upon almost as an intracranial rather than a scalp tumour. The close proximity of the tumour to the brain and its membranes often deters practitioners from interfering with it; and I not unfrequently see cases in which the parents of the child have been counselled not to allow any operation to be practised, lest death should result. But yet this tumour, so formidable in appearance, and so deeply seated, close upon the brain, and as it were within the cranium, may be removed with the most perfect safety by the ligature, if you know how to apply it. I have often tied nævi in this situation, and have never seen any ill consequences, nor even a convulsive fit, occur. The danger, then, from the mere strangulation of the tumour in this situation cannot be great; but there is another and a special danger, viz., the risk of wounding the membranes of the brain in passing the ligatures under the base of the tumour. Now, I need scarcely say, that if you use nævusneedles, or sharp

pointed instruments of any kind, this accident would be very likely to occur; you could not tell whether or not, in dipping down the needle, you had included a portion of the dura mater; and, if this were to happen, inevitably fatal consequences must ensue. However, this accident may always be avoided by operating as you lately saw me do in the case of a child eight weeks old, with a large purple nævus in the anterior fontanelle. A puncture was made in front of the tumour through the healthy scalp. An eyed probe, armed with a double ligature, was then pushed through this opening across the base of the tumour, and its end made to project on the opposite side beyond it; here another puncture was made, and the probe and ligature together were drawn through. The same procedure was adopted across the tumour sideways. In this way, a quadruple ligature was passed across the tumour in two opposite directions; the ends were then disengaged, and the ligature tightened in the ordinary way. Complete strangulation ensued, and the child was well in a fortnight, without a bad symptom.

Nævi of the Face are of very common occurrence, and usually cause so much disfigurement that their removal by surgical means requires to be undertaken whenever it is practicable. The treatment to be adopted necessarily varies greatly, according to the nature of the nævus, whether cutaneous, subcutaneous, or both, and especially according to its situation. The same plan, which may be advantageously adopted in one part, being altogether inapplicable in another. We shall, accordingly, consider the treatment of these vascular growths, as they affect the eyelids, the nose, the cheeks, and the lips.

Nævus of the Eyelids is usually cutaneous, consisting of a discoloration or staining, as it were, of the lid, without any material swelling of it. Such a disease is, I think, better left untouched; it cannot, of course, be removed either by the knife or caustics, without producing worse results; and, as the skin is always deeply involved, milder means are inoperative, or possibly equally destructive. I have heard of sloughing of the eyelid being occasioned by the use of astringent injections in such cases; though, if the nævus were subcutaneous, and constituted a distinct tumour, passing perhaps into the orbit, injection with the perchloride of iron might advantageously be adopted.

Nævus of the Nose may occur in two situations—at the root, or towards the alæ and apex. When seated at the root of the nose, upon the bridge, or at the lower part of the forehead, between and perhaps extending above the eyebrows, it is often subcutaneous, and may attain a very considerable magnitude. In such cases as these, I have found the quadruple ligature the readiest means of removal; and, although the part included may be of large size, you will find that the resulting cicatrix is wonderfully small and narrow, usually becoming horizontal, so as to fall into the folds of skin naturally existing in that situation. In the case of a little girl about three years of age, brought to me last autumn by my friend Dr. Gerber, I removed a nævus that was cutaneous as well as subcutaneous, and as large as a walnut, from this situation, by means of the quadruple ligature, with the most satisfactory result, the resulting cicatrix being remarkably small; and you have lately had an opportunity of seeing in a little girl, from the bridge of whose nose I removed, about a year ago, a nævus as large as a marble, how little scarring or deformity results. In both these cases, the nævus was cutaneous as well as subcutaneous. If the skin is not affected, then injection with the perchloride of iron may be advantageously employed in such cases. When the tip and alæ of the nose are affected, the nævus being cutaneous, we can seldom do much to improve the appearance of the patient. In such cases, I have tried breaking down the nævus, the use of injections, and the galvanic cautery, without any material benefit.

Nævi of the Cheeks may occur in three distinct forms—1. As a simple cutaneous nævus, a mere staining of the skin, "a mother's mark". This admits of no treatment, and the subject of it must submit to continue through life to exhibit the characteristic discoloration. 2. The elevated cutaneous nævus, raised above the surface, and of a deep purplish red or plum colour, covered with a very thin integument. In this form of the disease, I think that the application of the concentrated nitric acid is the best means of extirpation. By one or two free applications of the caustic, the nævoid growth is removed, and a dense white cicatrix, presenting little disfigurement, is left in its place. 3. The nævus may involve the whole thickness of the cheek, being scarcely, if at all, cutaneous. Such nævi as these cannot, of course, be extirpated, either by the knife, ligature, or caustics, lest the cheek be perforated, and the most serious dis-

figurement ensue. In such cases as these, we must endeavour to obliterate the structure of the *navus* by exciting inflammation in it by means of setons, or by breaking down the structure of the growth with cataract-needles or a fine tenotome. In a case which I attended some years ago, with my friend Mr. Bartlett of Notting Hill, a large and deep seated *navoid* growth, which occupied one cheek, was cured by having a number of fine silk threads passed across it in different directions, and then gradually, piece by piece, being broken down with a cataract-needle, no disfigurement whatever being left.

Navii of the Lips require different treatment, according as they occupy the margin or have involved the whole substance of these parts. When seated at the margin, as projecting and somewhat pendulous growths, they may very readily be removed by a double or quadruple ligature, according to their size; but when they involve the whole thickness of the lip, such measures as these are not available. If deeply invading the substance of the lip, an operation similar to that for the removal of a canceroid growth might be practised, the whole substance of the lip cut through widely on either side of the disease, and the incisions brought together with hare-lip pins. Such an operation is only practicable when the disease, though deeply seated, does not spread to any very great extent laterally. When it does, the whole of one-half of the lip, for instance, being involved, the use of the knife, especially in young infants, would be too hazardous, on account of the probability of serious hæmorrhage; and other means must be had recourse to. I have tried the use of setons, and of injections with the perchloride of iron; but not with any advantage. When the whole substance of the lip is involved, inclusion and strangulation of the morbid mass by means of the ligature is seldom available; the amount of sloughing being very great, and the child, absorbing the putrescent matters from the sloughy mass which results, incurring the danger of being poisoned from this source. In an infant with a very large *navus* including one-half of the lip, and which I ligatured at the hospital some years ago, death appeared to result from this cause. One of the most formidable, and in its results the most satisfactory case of *navus* of the lip that I have ever had to do with, was sent to me about three years and a half ago, by Dr. Budd of Barnstaple. The patient, a little girl five months old, was noticed at birth to have a red streak on the right side of the upper lip; this rapidly developed into a large tumid purple *navus*, which, when the case came under my observation, was about the size of a large walnut, involving the whole of the structures of the lip, from the cutaneous to the mucous surfaces; it was of a deep mulberry colour, and extended from the median line of the lip to the angle of the mouth. The integuments covering this growth were exceedingly thin, and the tumour itself in the highest degree vascular and active. What course was to be adopted in eradicating such a tumour as this? Excision appeared to be out of the question, on account of the extent of tissue involved, the early age of the child, and the probability of profuse and possibly fatal hæmorrhage. The ligature, from the experience I had had in a similar case, presented little to recommend it. Injections with the perchloride of iron and the introduction of setons were successively tried, but neither of these means produced any effect on the tumour, which commenced to extend upwards into the nostril. I accordingly determined on using caustics. Nitric acid was first employed; but, as this did not produce sufficiently deep impression on the growth, I had recourse to the potassa cum calce. By means of this powerful escharotic, the tumour was gradually removed; the hæmorrhage which occasionally resulted being restrained by pressure. Notwithstanding the amount of tissue destroyed, the resulting cicatrix was small, resembling that of a badly united hare-lip. I advised the parents to leave this for some years, and then, if it had not materially improved, proposed to excise it, and bring the opposite sound edges together by a hare-lip operation. A few weeks ago, the child was brought to me again, and I was much struck by the wonderful improvement that had taken place during the three years that had elapsed since the removal of the *navus*. The lip is smooth, the cicatrix in a great degree worn out, and comparatively little disfigurement is left in the countenance of an exceedingly pretty and engaging child. Finding, however, that the lip was still drawn or tucked in by a very dense band of cicatricial tissue, which caused a depression of the ala on that side, I divided this, and the result has been of the most satisfactory character.

Navii on the Organs of Generation are occasionally met with in the female, but rarely in the male. The only instance of

navus on the penis that I have met with occurred in the case of a gentleman thirty-two years of age, who consulted me about three years ago for a growth of this kind, as large as a walnut, situated under the reflexion of the preputial mucous membrane. It had existed for many years without giving any annoyance, but, having of late begun to enlarge, and occasionally to bleed, he was desirous to have it removed. This I did by applying the quadruple ligature, after having dissected down the mucous membrane. *Navii of the vulva and pudendum* are by no means of very unfrequent occurrence. We have had several instances of this kind in the Hospital of late years. They are usually of a venous character, often attain a large size, and may sometimes involve the integumental structures on the inside of the thigh, or on the perineum, as well as the vulva. When the growth is confined to the vulva, it is best removed by the ligature. Some time ago, I removed in this way a large venous pendulous *navus*, as large as two or three flattened walnuts, from the left labium of a little girl six years of age. In this case, I found it most convenient to employ the continuous ligature. The same means were had recourse to in order to extirpate a large *navus* from the labium of a child three years of age; but in this case the disease extended to the integuments of the perineum and inner side of the thigh, and was here removed by the application of strong nitric acid, after the larger growth had separated.

§ On the *Extremities, Neck, and Trunk*, every possible variety of *navus* occurs. When the disease is flat, consisting rather of staining of the skin than of any actual tumour, it may commonly be treated successfully by the application of the strong tincture of iodine; or, should it be thought desirable to remove it, this may be effected by rubbing it with strong nitric acid. If the *navus* assume the form of a tumour, it will almost invariably be of a venous character, and then removal by means of the ligature should be effected. If the growth is round, the ordinary quadruple ligature may be employed; if flat or elongated, the longitudinal continuous ligature is preferable.

Navoid Lipoma. Before concluding, I would draw your attention to a form of *navus* that I have occasionally met with, but which does not appear to have attracted much notice, although I find that M. Nélaton speaks of it: I mean a tumour in which the *navoid* structure is conjoined with or deposited in a cellulo-fatty mass—a kind of “*navoid lipoma*”, in fact. I have seen several cases of this disease, which has invariably been seated upon the nates, back, or thigh. It occurs as a smooth, doughy, indolent tumour, incompressible, not varying in size or shape, without heat, thrill, or pulsation of any kind, possibly having a few veins ramifying over its surface, but no distinct vascular appearance. It is usually congenital, or has been noticed in early childhood; and continues without any very material change in shape, size, or appearance, until the inconvenience or deformity occasioned by it requires its removal. This is best effected by the knife. After removal, the tumour will be found to be composed of a cellulo-adipose basis, having a large number of veins ramifying through it, so as to constitute a distinct vascular element, communicating with small cysts containing a bloody fluid. The situation in which I have seen such tumours occur, where they gave rise to most inconvenience, and where their removal has required the greatest care, has been the anterior part of the thigh, just below Poupart's ligament, close upon and almost in connexion with the femoral vessels. In a case of this description, which was sent to me last autumn by my friend Dr. Edwards of Antigua, the patient, a gentleman of that island, had suffered from a chronic solid œdema of one of his legs for some years, apparently dependent upon the pressure that was exercised upon the saphena and femoral veins by an elongated indolent tumour just below Poupart's ligament, and over the course of these vessels. This tumour had existed from childhood, and presented the signs that have just been given as characteristic of the disease under consideration. It was removed by an incision parallel to Poupart's ligament, some careful dissection being required to separate it from the femoral sheath, more particularly towards the inner side, where a prolongation of the tumour dipped down by the side of the femoral vein, doubtless compressing that vessel, and so disposing to the occurrence of the œdema of the limb. After removal, the tumour was found to consist of a mass of condensed cellulo-adipose tissue, with much vascular structure intermixed, and some small cysts. The œdema gradually subsided, and when the patient left England, about three months after the operation, the limb had nearly regained its normal size, being but little larger than the sound one.