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BLEPHAROPLASTIC OPERATIONS FOR THE RESTORATION OF THE LOWER EYELID.

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THE well-known difficulty of remedying the everted state of the eyelid following severe burns and other accidents attended by a destruction of the integuments, has caused a great number of operations to be proposed for its relief.

The method of Dzondi, which has been most generally in use, and which consists in making an incision into the cicatrix, and by maintaining the lips of the wound separate and applying stimulating applications, to induce a full growth of granulations, and thus by a broader cicatrix to remedy the deformity, has altogether failed to produce the desired effect, the eversion almost invariably re-appearing on the healing of the wound.

Within a few years, since the introduction of the autoplasmic methods for the restoration of lost parts, the transplantation of cutaneous flaps for supporting the remains of the everted eyelid, has been followed by complete success. The comparative novelty of the operation in this country has led to the publication of the following cases.

CASE 1. The subject of the first case was a boy, 12 years of age, from Weymouth, Mass. When an infant, through the carelessness of his nurse, he was dropped into the fire. The consequence was an extensive burn of the left side of the face, and a partial destruction of the lower eyelid. As the wound in the cheek cicatrized, the remains of the lid were completely everted, and the tarsal cartilage with its ciliæ firmly bound down on a level with the lower edge of the orbit.

The effect of this state of things was a constant epiphora, none of the tears apparently following their natural channels, but running over the cheek and exciting much irritation of the integuments. From the long exposed state of the conjunctiva, this texture had become considerably thickened, presenting almost the appearance of epidermis, and the cornea, from the constant exposure to air, owing to the impossibility of closing the lids, presented an opacity which was daily increasing, and threatened the destruction of vision. Under these circumstances the following operation was performed on the 12th of June—Dr. Hooper, Dr. Salisbury, Dr. Dale, and some other medical gentlemen, being present.

An incision, about an inch and a half in length, was made parallel with the commissure of the eyelids and about two lines below the palpe-

bral margin, and after a careful dissection, the remains of the eyelid were separated from the edge of the orbit. The dissection was then continued upwards between the tarsal cartilage and the conjunctiva, and the connections so far destroyed as to allow the lid to be restored to its natural position. The thickened and diseased subcutaneous cellular membrane, which might interfere with a proper adhesion of the flap to be transplanted, was then completely removed.

By the separation of the edges of the skin, a large oval-shaped wound now presented, and this was to be filled by a portion of skin taken from a neighboring part. To effect this, an incision was commenced from the outer angle of the wound, and carried, in a semicircular direction, over the temple, at which point, under the hair, was the only portion of sound skin which had not suffered from the effects of the burn; an oval flap was here dissected out, about one third larger in size than was required, and having fully retracted, was twisted round and maintained in its situation by means of a number of points of the interrupted suture, and a slight pressure exercised upon it with a roller bandage. Before terminating the operation the thickened conjunctiva, which formed a considerable projection beneath the lid, so as to prevent its perfect application to the eyeball, was raised up and entirely removed.

The termination of this case was quite successful. At the end of four days the dressings were removed, and the adhesion of the flap was almost complete—a slight suppuration only, at its inner angle, having occurred. The parts were all considerably swollen. At the end of a week, the pedicle which connected the newly transplanted flap to the neighboring parts was divided, and bled freely, showing a free vascular connection. The patient was sufficiently well in a month to return home.

I saw him about three months after the operation, and he gave the following account of himself.

He was able to close the eye perfectly, and the tears had returned to their proper channels. The newly-formed lid seemed to fulfil all its functions, and there was no disposition in it to become everted. On an examination of the cornea, it was found that the opacity had so far disappeared as to be scarcely perceptible. The only circumstance which required a remedy, was a disposition in the new lid to stand out from the eyeball, as if from a swollen state of the conjunctiva; this was remedied by the repeated application of a pencil dipped in sulphuric acid, so as to destroy a narrow strip of the conjunctiva. The transplanted skin at first formed a considerable protrusion, but is gradually settling down to the level of the surrounding integuments.

CASE II. The second case was a young lady, 19 years old. The accident which produced the deformity was very similar to the preceding one—she having been allowed to fall into the fire when an infant, and being very badly burned in the face. From this resulted a very extensive cicatrix, affecting nearly the whole skin of the face, and in some parts implicating the subcutaneous textures. The left eyelid was drawn down and everted at its external angle, leaving the eyeball exposed at that point. From the destruction of the integuments of the cheek, the left angle of the mouth was drawn upward in a direction to meet the external

angle of the eye—there being about an inch and a half distance between the two. A large, firm band of indurated and thickened integument extended from the forehead perpendicularly across the bridge of the nose. The external edge of the right eye was also slightly drawn downward by a cicatrix, but the cheek of this side having partially escaped the effects of the burn, there was no eversion of the eyelid. The following operation was planned and executed on the 7th of November, in the presence of Dr. Coates of Philadelphia, Dr. Bethune, and Dr. Warren, Sen.

An incision, two inches in length, commencing on the cheek, midway between the eye and upper lip, was carried with a semicircular sweep in a direction upward and outward towards the ear, its convexity being downward. The skin was then dissected up both above and below, so as to relieve the traction of the integuments in either direction, and on this being accomplished, no difficulty was experienced in restoring the eyelid and angle of the mouth to their natural positions.

From the separation of its lips, the wound on the cheek now gaped widely open, being an inch in the perpendicular, and two inches in the transverse diameter, and this was to be filled up by borrowed integuments. The effects of the burn having penetrated into the muscular substance, it was necessary first to remove all the indurated substance covering the floor of the wound, which was not done without considerable suffering to the patient, this new-formed texture possessing, apparently, a high degree of sensibility. A large oval-shaped flap, one third larger than was absolutely necessary to fill the wound, was now dissected from the temple, twisted round, and without difficulty adjusted, and secured in its new situation by means of sutures, as in the preceding case. The wound on the temple was drawn together by sutures, and in a direction to favor the transplanted skin in remedying the deformity.

The unseemly cicatrix on the bridge of the nose was now completely dissected out. The vessels which were divided during the operation were allowed to bleed until they ceased voluntarily, it being desirable to avoid ligatures. The wound was dressed with graduated compresses and secured by a roller bandage. The patient was requested to keep perfectly quiet, and not to attempt to use her voice. Notwithstanding the injunctions, she was led to talk considerably during the afternoon, which brought on a slight hæmorrhage, not sufficient to cause much trouble at the time, but which, it was subsequently discovered, had partially prevented the union of the transplanted flap.

But little constitutional irritation followed the operation. On the fourth day the bandage was removed, and two thirds of the flap was found to have united; the inner portion towards the nose was raised up by a coagulum of blood, and the union at this point, of course, defeated. The wound on the temple had, in a great measure, united by the first intention. On the sixth day the ligatures were all removed, and the inner portion of the flap, which showed a disposition to slough, was cut away—the wound, at this point, where, fortunately, the support was least required, being allowed to heal by the second intention.

At the end of six weeks the wounds had all healed, and the patient returned home, greatly improved by the operation. There seemed to be

no disposition in the eyelid to become everted, and its functions were well performed. The mouth was also restored to nearly its natural appearance. The facial expression was greatly improved by the removal of the unsightly band which projected out over the bridge of the nose.

CASE OF ANOMALOUS KINE POCK, WITH REMARKS UPON THE SUBJECT OF VACCINATION.

BY STEPHEN W. WILLIAMS, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN the early part of March, 1840, I inoculated A. B., aged five years, with kine-pock matter in a limpid state and perfectly pure. I used the same matter for inoculating about a dozen children on the same day. They all did well, and passed regularly through the complaint, except this little boy. About eight or ten days after the inoculation, an eruption appeared on various parts of the body, hands and face, almost exactly resembling the vesicles of kine pock in a state of maturation. The symptomatic fever was high, and the patient was quite sick. I immediately visited all my other patients whom I inoculated at the same time, and found them doing well, and not a single unfavorable symptom about them. They passed regularly through the complaint.

This patient had, when quite an infant, and for many months afterwards, been troubled with a most inveterate *salt rheum*, or *psoriasis inveterata* or *diffusa*, which for a year or two yielded to no remedies which were prescribed for it. It was confined almost exclusively to the head and face. It was finally cured by the tar ointment, and the long-continued internal use of Fowler's mineral solution. He had no eruption about him at the time he was inoculated.

What was very singular in this case was, that the father of the child, who passed regularly through the smallpox in the year 1796, I believe, was attacked with eruption about the time I discovered the anomalous vesicles in the child. I did not see him at the time, but he has since informed me that his eruption exactly resembled the smallpox which he had in the above-named year. He had now no constitutional symptoms. Two other children of his, who had several years before been inoculated and passed regularly through the kine pock, were attacked in the same manner with the father, and had a similar crop of eruptions. It was supposed to have been communicated to them from the child, by wiping themselves upon the same towel. I consider the case somewhat singular, and I trust you will excuse me for communicating it for your Journal.

While on this subject, will you allow me to make a few remarks upon one or two controverted points in relation to vaccination. Some of the observations which I shall make have been presented to the public in a different journal, more than a year ago, but they are so much modified that they may be deemed sufficiently important to be inserted here.

1. In relation to the kine pock being a protection against the smallpox only for a limited time. I very well recollect that a great objection to