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SOME CASES OF CHRONIC ENTROPION AND TRICHIASIS OF THE UPPER LID, RESULTING FROM GRANULAR OPHTHALMIA.*

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This affection presents itself very frequently at charitable Institutions for the treatment of eye-diseases, though comparatively seldom in private practice. Besides the disease of the conjunctiva, with its roughness and shrinking, there is also a slight incurving of the edge of the lid, and consequent change in the position of the lashes, which, instead of being directed forward, away from the cornea, come to rest upon or press against it; occasionally, also, the palpebral aperture is diminished. Moreover, owing to the mechanical irritation of the above-mentioned changes, and, perhaps, sometimes, to an extension of the conjunctival disease to the cornea, the latter often becomes vascular, turbid or opaque, and ulcerated.

The shrinking of the conjunctiva may, of course, be aggravated by excessive cauterization, and, as this is sometimes the case, it is better to err on the side of too mild applications, rather than of the opposite. The general opinion, however, is that a certain degree of shrinking of the conjunctiva and consequent incurving of the edge of the lid is due to the natural course of the disease, although, even on this point, a different opinion is held by Mannhardt,[†] who observed in the East very many cases of the injurious effect of bad treatment.

This combination of diseased changes, attended by more or less pain and discomfort and serious impairment of sight, is sometimes beyond the power of the medical man to cure. The active disease of the conjunctiva is often very difficult to control, and, even after the active inflammation is over, the shrunken and cicatrized condition in which the lining membrane of the lids may be left, is of itself, in many instances, a source of irritation, partly by impeding the motion of the eyeball, and partly by pressure upon it, and this altered conjunctiva cannot be restored to its normal state.

To give some relief under these circumstances by remedying, to a certain degree, the injurious condition of the edge of the lid, many operations have been proposed. In the first place, it may be stated that, in the cases we are here considering, cases of chronic entropion and trichiasis, resulting from granular ophthalmia, the excision of a piece of skin from the lid (in the case of the upper lid), while having but little effect to remedy the entropion, has an injurious effect by

* Read before the Boston Society for Medical Observation.

[†] Archiv für Ophthalmologie, xiv. 3, page 41.

shortening the lid. In case of the lower lid, where the tarsus is smaller, Walton's operation of removing a strip of skin and muscle next the edge is sometimes useful.

Until within a few years, I had generally preferred the removing of the cilia by Flarer's operation, by taking away from the edge of the lid its anterior layer containing the bulbs (this edge having previously been split into two layers, the anterior containing the bulbs). This operation often gives considerable relief, but is open to the objection that it is not directed principally against the incurving of the edge of the lid, that it is sometimes followed by an uneven cicatrix of this edge, and that it sacrifices the lashes.

Another operation is that known as Arlt's modification of Jaesche's operation. This involves removing a large piece of skin from the lid, which is objectionable as endangering the shortening of the lid, and also requires dividing the edge of the lid into an anterior and posterior layer, so that all the bulbs of the cilia may be contained in the anterior layer (which is to be transplanted upwards on the lid) and none in the posterior. Such a section is by no means easy to make when the disease is advanced, since then the cilia emerge close to the free edge of the inner surface of the lid, and we may easily leave some of the bulbs in the posterior layer of the divided lid-edge, or if the section is not smooth we may get subsequently an injurious cicatrix of the edge of the lid.

Græfe's modification of this, which consists in sliding up on the lid the anterior layer of the edge which contains the ciliary bulbs, without necessarily removing a piece of the skin, presents objections similar to those already mentioned.

Another operation, acting more directly to cure the incurving of the edge of the lid, and called "grooving the fibro-cartilage," was described by Mr. Streatfeild in 1858, in vol. i. of the *Ophthalmic Hospital Reports*. Ten years later, in 1868, a similar operation was strongly recommended by Mannhardt, in the *Archiv für Ophthalmologie*, vol. xiv., part 3, and there referred to as the operation of Snellen.

The essential feature of these operations appears to be the removing from the tarsus along its whole length a strip of its substance; the strip to be somewhat wedge-shaped, with its base towards the skin, and the opposite edge or apex towards the conjunctiva, so that when the walls of the gap (thus made throughout the length of the tarsus) grow together, the inverted edge of the lid may be drawn away from the eyeball. The strip of tarsus is removed through a cut in the skin, made along the edge of the lid, and distant about one or one and a half lines from it. The ciliary bulbs are to be avoided. It is desirable, also, to avoid incising the conjunctiva, and especially not to excise any of it.

According to Mannhardt, two or three sutures may be introduced, each passing, at the upper part, through the substance of the tarsus itself, at the lip of the groove, and below, not through the tarsal substance, but between this latter and the skin, the suture to emerge a little above the emergence of the cilia. In a recent description of Snellen's operation, in the *Annales d'Oculistique* for March and April, 1873, some minute directions are given for the sutures. But Streatfeild's method omits sutures. According to Streatfeild's method, the strip of skin and muscle corresponding to the excised wedge of tarsal substance may also be excised.

The following few notes of several cases treated at the Massachusetts Charitable Eye and Ear Infirmary, by a method similar to that of Snellen, have given me the impression that the method of excision of a strip of the tarsus is, in general, preferable to the removal of the lashes, or to Arlt's modification of Jaesche's operation. The notes are, unfortunately, too scanty to illustrate fully the advantage of the method, but they will show some of the accidents to which the operation is liable, and, as of use in this respect, I beg leave to offer them to the Society.

CASE I.—A woman, American, aged 26, dressmaker, suffering from chronic entropion and trichiasis of both eyes, was admitted to the Infirmary 1872, Feb. 22. As she was quite averse to having the lashes removed, it was determined to try grooving the tarsus, by a method similar to that of Snellen; this was accordingly done February 27th, under ether, on the upper lid of the *right* eye.

One of the tarsal sutures was removed March 1st, and the other March 3d, and the patient was discharged March 6th, very much improved.

June 14th.—Grooving of the tarsus, as above, was done on the upper lid of the other eye, the left. Also, each lower lid operated on by removing a narrow strip of skin along its edge.

Aug. 24th.—Another secondary operation for trichiasis on the *left* eye, but the record does not state what. About a year later, 1873, Aug. 13th, a few incurved lashes removed from inner end of upper lid of one eye.

That this last operation should have been required is in accordance with the experience that it is more difficult to rectify the position of the lashes at the ends of a lid than of those at its middle. On the whole, the patient was improved by the numerous operations.

CASE II., 1871, Sept. 30th.—Mr. —, Armenian, aged about 26 years, consulted me for his eyes, both of which were affected with chronic, granular ophthalmia; there was also an ulcer of the left cornea. The patient was seen by me a few times at intervals till March 18, 1872, when the eyes were somewhat improved. After more than a year, he again called on me, 1873, May 28. The left eye showed decided distichiasis of cilia of upper lid, and some alteration in the tarsus. The right showed partial distichiasis.

1873, June 2.—Patient entered the Infirmary, and the next day each upper lid was operated on, under ether, by removing a narrow strip of tarsal substance lengthwise from the front of the tarsus along its whole length. The patient left the Infirmary June 9th. On June 20th, the middle third of the lashes of the upper lid of the right eye were wanting, and a somewhat similar appearance on the left.

Aug. 12th.—A few scattered lashes from the middle third of each upper lid scrape the cornea. These were drawn out.

1874, Feb. 10.—The right eye shows, at the middle of the edge of the upper lid, a few very fine cilia. The left has slight cloudiness and unevenness of surface of cornea. Conjunctivæ of upper lids high-colored and somewhat shrunken, more so in the left.

This case, in which I had decidedly advised the operation, was not altogether satisfactory, for, though in the main the position of the edges of the lids and of the cilia was improved, yet, in addition to losing certain of the cilia, the preservation of which I had expected,

there appeared some degenerated or dwarfed cilia, with faulty position. This was probably due, either to cutting directly into, or too near to some of the bulbs. At the same time, while bearing in mind the propriety of avoiding the roots of the lashes, it is also to be remembered that the nearer to them the lower incision into the tarsus is, the larger can be the strip of tarsus excised.

CASE III., 1873, Aug. 7.—A woman, American, aged 62, was admitted to the Infirmary with incurving of the temporal half of each upper lid, and with some trichiasis.

Aug. 8th.—Under ether, after dividing the outer canthus, the operation of grooving the tarsus, by a method similar to that of Snellen, was undertaken on the *right* upper lid, but was found to be difficult, owing, perhaps, to the shrunken condition of the conjunctiva. This was accidentally incised, and, possibly, a small bit of it excised.

On account of the difficulty met with in doing the grooving of the tarsus on the right, it was thought better to try on the other eye, together with division of the external canthus, the removal from the edge of the lid by Flarer's operation of the anterior layer, containing the ciliary bulbs.

Aug. 9th.—The lid from which the lashes were removed is more swollen than the other.

Aug. 15th.—A short, narrow strip at the middle of the ciliary edge of the *right*, that on which the grooving was done, seems to have sloughed.

Aug. 19th.—The lashes of the temporal half of the upper lid of the right were turned outward by the operation, as desired, but a small portion at the middle of the upper lid-edge has sloughed, leaving a notch about $1\frac{1}{2}$ lines deep, and 2 lines long.

In general, a small incision of the conjunctiva would not be injurious, and even the excision of a small bit, though to be avoided, as giving rise, subsequently, to a scar, which might irritate, yet would hardly interfere seriously with the healing. In the above case, one or more of the sutures may have been drawn too tightly, or the sloughing may have been due to the age of the patient.

CASE IV., 1873, Aug. 18.—A woman, Irish, aged 30 years, had had, about six years ago, the lashes removed from each upper lid by Flarer's operation. The *right* eye had been relieved. The *left* was still troublesome, and shows some lashes still growing at the nasal half, and the temporal half of the tarsus is quite convex externally. The patient, complaining of suffering in this eye, is admitted to the Infirmary, and two days afterwards, in the hope of relieving the irritation, the remaining lashes of the left upper lid were removed, and a strip of tarsus was also excised lengthwise from the temporal half of the lid, in order to relieve the incurving of this part of the edge.

Aug. 22d.—Discharged, relieved.

The *left* eye, in this case, illustrates well the occasional unsatisfactory result of Flarer's operation for removal of the ciliary bulbs, although the other eye had been relieved by that operation.

CASE V., 1873, Aug. 7.—A young man, aged 18, was admitted to the Infirmary with granular ophthalmia, incurved upper lids and some trichiasis. He remained under treatment for some time, and was again admitted Dec. 1st, for operation, which was done by grooving the tarsus of each upper lid by a method similar to that of Snellen, three sutures being inserted in each case.

Dec. 9th.—Swelling of lids less. Ecchymosis nearly or quite gone. Middle third of edge of right upper lid excoriated along the line of emergence of the lashes.

Dec. 13th.—Insufficient closure of lids of each eye, which, however, existed before the operation, according to the patient.

Dec. 23d.—Middle third of edge of right upper lid is without lashes. Patient thinks operation has helped him.

1874, Feb. 11.—Effect of operations on the position of the lashes is rather satisfactory, but conjunctival disease remains.

CASE VI., 1874, Jan. 5.—A young man, aged 15 years, born in England, was admitted to the Infirmary with trichiasis, entropion and corneal opacity of the *right* eye, and nystagmus of both eyes.

Jan. 6th.—A strip of tarsal substance was removed from the tarsus of the the upper lid of the *right* eye; three tarsal sutures, and one to connect the flaps of skin, were applied.

Jan. 9th.—Discharged from the Infirmary, improved.

Feb. 24th.—Right eye much improved as regards entropion, but nystagmus remains. Patient thinks some improvement, also, in vision of *right*.

CASE VII., 1874, Feb. 27.—A man, aged 31 years, born in Ireland, was admitted to the Infirmary. The *left* eye was lost from smallpox many years ago. The eyeball was atrophied, but without pain, spontaneous or on pressure. In the *right* eye, there was granular ophthalmia, with a slight incurving of the edge of the lid, and alteration of the corneal surface. The lashes had been pulled out at various times since last April. Now several small cilia turned towards the cornea.

Feb. 27th. A strip removed from the tarsus of the right upper lid; a thick, large strip from the temporal half, but not as large a piece from the nasal portion. This was perhaps due to the nasal end of the cutaneous incision being a little too far from the edge of the lid. At this end of the lid, the conjunctiva was accidentally incised.

March 1st.—Sutures removed.

March 14th.—Edge of lid well everted. Cornea improving.

March 15th.—Patient thinks he sees better than before the operation. Conjunctival disease remains, and may require further treatment.

PNEUMONIA; PLEURISY; PNEUMO-EMPYEMA. PERMANENT OPENING FOR FOUR MONTHS. RECOVERY.

By H. C. MARION, M.D., of Brighton.

M. S., strong, well developed, nineteen years old, fell sick with pneumonia of right lung, February, 1873, after exposure to cold. As resolution was being established, trouble in the left lung was announced by chill, increased febrile disturbance, with physical signs of pneumonia. The disease took on an asthenic form, and for eight or ten days his case looked very doubtful. In due time, however, convalescence was pronounced, but was interrupted in a few days by pleuritis of the right side. This was followed by effusion. As this condition caused no urgent symptoms, the line of dulness being an inch or more below the nipple when in an erect position, I depended on general treatment rather than direct interference. In April, he was out, and came to the office for advice. He im-