

Remove at once.

ball. The sooner, therefore, a wart so situated is removed the better; it is useless to waste time in applying caustic, it should at once be snipped off with a pair of scissors.

HORN
GROWTHS.

HORN EXCRESCENCES are now and then met with springing from the skin of the lids; they seem to depend upon the secretion from a sebaceous gland becoming hardened, and fresh exudations taking place over it; layer after layer of the sebaceous matter thus drying over the original deposit, the horn-like mass at length becomes of such a size as to disfigure and inconvenience the patient considerably.

Remove with scissors.

The same plan of treatment is to be adopted as in the case of a wart: the excrescence, and the skin from which it appears to grow, being snipped off with a pair of curved scissors.

MILIUM,

MILIUM.—Accumulations of sebaceous matter occasionally occur in the ducts of the subcutaneous glands, forming little tumours on the fore edge of the eyelids, resembling minute pearls, situated beneath the epidermis. They seldom exceed a pin's-head in size, and frequently form in groups of irregular shapes and dimensions. It is seldom necessary to interfere with minute tumours of this kind; but if it is deemed advisable to do so, the epidermis covering them may be scratched with the point of a knife, and the contents of the cyst squeezed out.

unim-
portant.

SEBACEOUS
TUMOURS,
of small
size.

SEBACEOUS TUMOURS, only slightly larger than those last described, but which may grow to the size of a split pea, and contain sebaceous matter, are occasionally met with in the skin of the lids, especially among scrofulous children. They may be readily removed by carefully incising the skin over them, and then squeezing the cyst and its contents out of its nidus. The walls of these cysts, however, are by no means thick, and are almost sure to burst in our efforts to remove them, in which case the remains of the cyst should be torn or dissected away from its attachments. If this is not done, the tumour is very likely to appear again; in fact, if left to Nature, the course they usually take is, after growing to a certain size, to burst and give exit to their contents, which speedily re-form so long as the cyst remains intact.

Destroy the cyst.

Larger
tumours,

Large sebaceous tumours, similar to those noticed in other parts of the body, sometimes form in the eye-

lids, most commonly springing from the periosteum of the frontal bone. They generally contain a glairy, fatty matter, and frequently also a number of hairs. Like the other forms of cystic tumours, they give the patient no pain or inconvenience, beyond such as arises, in this particular situation, from their bulk, which is often considerable.

painless
but bulky

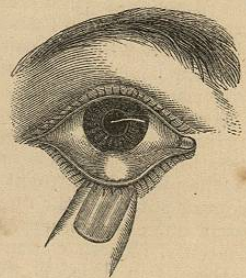
In excising a tumour of this kind, it is well to make the incision from without inwards, or in a direction parallel to the fibres of the orbicularis, as the morbid growth is usually situated beneath this muscle. The entire cyst must be carefully dissected away, and it will much facilitate the operation if this is accomplished without opening it. After removing the tumour, the wound must be exposed to the air till all oozing of blood has ceased; its edges may then be brought together with sutures, and painted over with collodion. A pad and bandage must subsequently be applied to keep the parts at rest for a few days. There is then every chance of the wound healing by the first intention, a slight scar only remaining to indicate the position of the incision.

should be
excised,

without
opening.

MEIBOMIAN CYST, CHALAZION, OR TUMOR TARSII.—These tumours arise in the follicles of the Meibomian glands, and are therefore imbedded in the substance of the tarsal cartilage. As they increase in size, they form little painless swellings beneath the skin of the lid, varying in size from a split-pea to a horse-bean. They are unsightly, and induce a disagreeable stiffness of the lids, but beyond this are harmless. On everting the lid from which they spring,

FIG. 11.



MEIBO-
MIAN
CYSTS.

Their
characters.

(After Mackenzie.)

the position of the tumour is marked by a circumscribed, yellowish white projection. (See Fig. 11.)

These tumours sometimes become inflamed, and suppurate, without any apparent cause: the abscess, having discharged its contents, the parts return to their normal condition. But, in the majority of in-

May sup-
purate.

stances, it is advisable to evert the lid thoroughly, and the conjunctiva being put on the stretch, so as to render the tumour prominent, a crucial incision must be made into it through the conjunctiva, so that the tumour may be well laid open, and its contents scraped out with a small spatula or curette.

Should be opened.

Immediately after the operation the wound fills with blood, and the size of the tumour may not perhaps appear to have diminished; but in the course of a few days the blood is reabsorbed, and all traces of the tumour disappear.

Water dressing.

Improve the general health.

CALCAREOUS CONCRETIONS,

in gland ducts,

to be removed.

FIBROMA.

NÆVI.

There is no necessity for any after-treatment in a case of this kind. Cold-water dressing may be applied over the lids for twenty-four hours, the eyes being closed with a pad and bandage: otherwise the rough surface of the conjunctiva, rubbing against the cornea, may give the patient annoyance. It may subsequently be necessary to attend to the patient's general health, administering tonics, and otherwise endeavouring to improve the tone of his system; for these tumours are likely to follow one another in quick succession, both in the upper and lower eyelids, if the patient is below par.

CALCAREOUS CONCRETIONS may form in the ducts of the Meibomian glands, and may be felt as small nodulated lines beneath the skin of the eyelid. On everting the lid, the white deposits in the duct may generally be seen beneath the conjunctiva. These concretions give rise to a good deal of irritation by rubbing against the surface of the cornea, inducing hyperæmia of the conjunctiva, which cannot be cured till the foreign substance in the ducts is removed.

The plan of treatment in these cases is to evert the lid and slit open the duct, and then with a spatula or some such instrument, to scrape out its calcareous contents. These concretions are very apt to re-form, especially in districts where the drinking-water contains an unusual quantity of the salts of lime.

FIBROMA of the eyelids is occasionally met with as a small bony tumour, of very slow growth, but sometimes being exquisitely painful. A growth of this kind should be removed as soon as possible.

NÆVI.—A nævus must necessarily be of small size if confined to the eyelids. For the most part, they are of congenital origin; and though, as a general rule, originally situated beneath the orbicularis, the mus-

cular fibres covering them gradually become absorbed, and the nævus then appears as a small, soft, and compressible tumour, situated under the skin, its colour depending upon the preponderance in it of the arterial or venous elements: if the latter are in excess, it presents a bluish appearance. The blood may readily be squeezed out of the nævus, if slight pressure be exerted over its surface; but the sponge-like mass refills and swells up again, as soon as the compressing force is withdrawn. In like manner, a nævus becomes swollen and congested, if the patient strains to any extent, as in the act of coughing or crying.

Deep colour.

Sponge-like character.

Treatment.

Treatment.—Our object is to obliterate the vascular network, of which the nævus is constituted; but at the same time, if possible, to prevent the skin covering it from being destroyed. If this is not provided against, a cicatrix may form, which, in contracting, may evert the eyelid. A small nævus may often be destroyed by puncturing it, and inserting into the puncture a glass pen dipped in nitric acid. I am in the habit of passing two or three worsted threads, soaked in perchloride of iron, through the base of the tumour, and leaving them there for a day or two—in fact, till they have excited some slight amount of inflammation, when they should be withdrawn. The inflammatory action thus set up is often sufficient to obliterate the vessels forming the nævus.

Spare the skin.

Nitric acid.

Worsted threads.

If the nævus is of some size, it will be better at once to inject a saturated solution of tannic acid in water into it. Its vessels must first be emptied of blood, a pair of Desmarres' forceps being applied so as to prevent the reflux of blood into the tumour; the point of an hypodermic syringe may then be thrust into the nævus, and the tissue injected with the saturated solution of tannic acid. After a few minutes the forceps should be removed, but, as a general rule, it is well to keep ice applied to the lid for some few hours after the injection; it prevents the inflammatory action from running too high, and, as I have before remarked, sloughing of the skin is to be avoided. A saturated solution of perchloride of iron may be used in place of the tannin, but I think the latter is more to be depended on, and its effects appear to be more uniform than in the case of the perchloride. I have seldom found either one or other of the above modes of treat-

If large, inject with tannic acid.

or perchloride of iron.

Ligatures. ment fail to cure a nævus of moderate size; when they are larger, it may be necessary to cut off the supply of blood going to the tumour, by applying a ligature to its base, so as to strangulate the mass, as described by Sir W. Fergusson in his "System of Practical Surgery," to which work I would refer the reader for further details on the subject. Electrolysis has of late been successfully employed for the cure of these nævi; its application is free from pain, and it leaves no scar or disfigurement.

PARALYSIS AND SPASM OF THE EYELIDS.

PTOSIS, OR FALLING OF THE EYELID.—An inability to raise the upper eyelid may occur in one or both eyes from any of the following causes: first, it may be a congenital defect; secondly, it may depend upon a relaxed state of the skin and tissues of the lids; thirdly, ptosis may arise from an injury to the levator palpebræ muscle; fourthly, it may occur from a defect in the nervous apparatus supplying that muscle.

Prevents vision. From whatever cause arising, a patient suffering from ptosis is unable, by a voluntary effort, to raise the upper lid of the affected eye, but in other respects his vision, and in fact the ocular apparatus may be perfect. If the ptosis is complete, the upper lid, by hanging over the cornea, obstructs the passage of light to the eye; and hence, for all practical purposes the sight is destroyed till the obstruction is removed.

1. Congenital ptosis. Excise a portion of skin. Elongate the pupil. 1. In congenital ptosis both eyelids are usually equally affected. For its relief, an elliptical portion of the skin of the lid may be removed (*vide* Fig. 12, p. 106), the edges of the wound being brought together with sutures, and the shortening of the lid thus produced may enable the patient to raise it sufficiently to admit the rays of light into the eye; but in many of these cases the muscular fibres of the levator palpebræ are almost entirely wanting, and in spite of the above described operation, the lid still droops over the pupil, interfering very much with the perfection of vision. In a case of this description I lately elongated the pupil downwards to the great relief of the patient. Such cases may tax our ingenuity to the utmost, in order to devise means for their amelioration; but, fortunately, this form of ptosis is rare.

2. Ptosis, arising from an elongation of the skin and connective tissue of the lids, is a more manageable affection; it seldom occurs except among old people, or those who have suffered from long-continued conjunctivitis. In these cases the connective tissue and skin have been stretched to cover the hypertrophied mucous membrane, while the fibres of the levator palpebræ have become atrophied from senile degeneration. The contractile power of the levator is seldom, however, completely destroyed; and considerable benefit, therefore, frequently arises from excising an elliptical portion of the skin (*vide* Fig. 12), allowing the wound to cicatrize, and in contracting to shorten the lid. The state of the conjunctiva must also be attended to, for in the majority of these cases it is hypertrophied, and, in all probability, will be improved by the application of the dilute red mercurial ointment to its surface twice a day.

3. Wounds and injuries of the levator palpebræ, by dividing or destroying the contractile power of the muscle, are likely to induce ptosis. We may endeavour to rectify this state of things by excising a portion of the skin of the lid; but the loss of power in the muscle will prove a serious obstacle to any permanent amendment. If, as is most probable in cases of this kind, only one eye is affected, it is advisable to elongate the pupil downwards, endeavouring by this means to restore binocular vision.

4. Ptosis, arising from paralysis of the levator palpebræ, appears occasionally to be the result of an injury to one of the branches of the fifth nerve, probably affecting the motor nerve by reflex action from the quadrigeminal bodies.

The same result may follow malarious affections of the supra-orbital nerve. In these cases the optic nerve and recti muscles are more or less affected, and their functions impaired.

In those more complicated cases, however, where the ptosis seems to depend on a primary affection of the nerve or nervous centre, we may have to exert all our intelligence and skill both in referring the malady to its true cause, and adapting our remedies to the special requirements of the case. We shall do well to bear in mind that syphilis in its various phases is a prolific source of disease, both in the sheaths of the

2. Ptosis from relaxed tissues.

Excise a bit of skin.

Ung. hyd. rub.

3. Ptosis from wounds.

4. Paralytic ptosis.

Malarious.

Syphilitic and other obscure forms.

nerves and in the brain itself; nor must we forget that this form of ptosis may be due to tumours, to limited apoplexy, and many other obscure affections to which the nervous centres are liable.

Ptosis. In some instances, paralysis of the levator palpebrae is developed suddenly, apparently from the effects of cold. The patient has probably been exposed to a bleak wind, or slept in a damp bed, and the next morning on rising, finds that he cannot open one or other of his eyelids. Many of these cases recover, but in some instances progressive atrophy of the optic nerve supervenes; and it is more than probable that the disease, though attributed to cold or rheumatism, has been in progress for a considerable time, and depends either upon embolism of some of the smaller vessels, or fatty changes in the central axis of the nerve, or nervous centre.

Treatment. In the earlier stages of the disease, when of malarious origin, we must not neglect the use of drugs; and we may reasonably hope, by attacking the malarious diathesis in this way, to stop the further progress of the local affection. With this intention, we should try the effect of arsenic combined with iron and strychnine, and other reputed remedies for the cure of malaria.

Drugs. We may also employ counter-irritation by an issue, or blisters to the temples, as well as administer nervine tonics, iodide of potassium, and so forth, according to circumstances, not neglecting due attention to the condition of the alimentary canal and its secretions.

Blisters, Pot. iod. In other cases of ptosis, depending for instance on cerebral disease, the wasted muscle may be best excited by means of Faradization.

Faradization. In employing electro-magnetism for the relief of ptosis, the positive pole may be applied below the ear, and a small piece of moist sponge, connected with the negative pole, over the skin of the closed eyelid. The excitation should be weak, and never continued for more than a few minutes at each sitting. If this mode of treatment is likely to prove beneficial, the amendment generally becomes apparent very speedily. Unfortunately, this form of paralysis is often slow in its development, and being attended by no urgent symptoms, the patient may fail to apply for relief until irreparable damage has been done to the muscles.

PARALYSIS OF THE ORBICULARIS PALPEBRARUM is less frequently met with than ptosis. When it exists, the patient may be able to open the affected eyelid, but is unable to close it completely; and the cornea, being more or less constantly exposed to the influence of the air, and of particles of dust which settle upon it, and its nutrition being at the same time impaired, irritation and ulceration are apt to occur. The orbicularis is seldom paralysed alone; in almost all cases the other muscles of the same side of the face, supplied by the seventh nerve, are also affected, the sensation of the part remaining perfect.

The most common causes of this "Bell's palsy," as it is called, are exposure to cold, mental emotions of various kinds, and traumatic lesions of the nerve; under any of these circumstances the paralysis occurs suddenly. In other cases the affection is developed slowly, and then usually depends on some lesion of the facial nerve, following syphilitic or other inflammation of its sheath, or of the bony walls of the aqueductus Fallopii; or it may be due to otitis, terminating in necrosis of the petrous portion of the temporal bone.

In some few instances the disease commences in the brain. M. Trousseau, in referring to such cases, remarks, that the "orbicularis palpebrarum is never paralysed to the same extent in lesions of the hemispheres of the brain, as it is in disease of the facial nerve; hence, if a hemiplegic patient is asked to shut his eyes, he does it completely enough to hide the globe of the eye, whilst the eyeball remains uncovered in cases of paralysis of the seventh pair."* The pathology of facial paralysis, however, is an extensive subject, and I can only glance at those points in its history which have a direct bearing on the questions before us.

As I have already said, the orbicularis is often involved in facial palsy: consecutive ulceration of the cornea is very apt to occur, and the eye may thus be destroyed; and consequently it is advisable to keep the eye closed with a pad and bandage until the orbicularis has regained its power. Troublesome lachrymation is present from an early stage of the

PARALYSIS OF THE ORBICULARIS. Prevents closure of the lids.

Cornea suffers.

Cold, a cause.

Syphilis.

Disease of brain.

Ulceration of the cornea.

* Bazire's translation of Trousseau's "Clinical Medicine," vol. i. p. 3.

affection, the lower lid no longer forming a canal for the tears; the puncta, moreover, in consequence of the paralysis of the orbicularis, cannot assume their normal position, but drop away from the eyeball, leaving the tears to trickle down over the corner of the eye. Very many cases of facial paralysis recover of themselves; perhaps one of the best tests we possess of the probable result of a case, is to ascertain how the affected muscle responds to the electro-magnetic current. If no contraction of the palsied muscle takes place on being thus stimulated, it is almost a certain sign of the incurable nature of the disease.

Treatment. Although idiopathic facial paralysis generally gets well of itself, the cure may be sometimes hastened by counter-irritation, and exhibition of strychnine, veratrum, and the use of Faradization. In instances of a syphilitic or apparently malarious origin, while employing electricity to excite the muscle into action, we should never fail to administer iodide of potassium, quinine, and other drugs, which appear sometimes to exercise a direct influence on these affections.

BLEPHAROSPASMUS. BLEPHAROSPASMUS, or spasmodic closure of the eyelids, is an affection of the orbicularis. This muscle is especially liable to spasmodic disorders, the levator palpebræ being but rarely affected.

1. Clonic form. In certain cases of spasm of the eyelids, the contractions are of a clonic kind, so that the patient is constantly winking; or if a portion only of the muscle is involved, a limited twitching is produced. This affection is most common among weak and irritable subjects, and, though unpleasant enough, is generally of no great moment, being readily overcome by a tonic plan of treatment, and the use of a stimulating liniment. There are cases, however, in which such clonic contractions of the lids become a permanent disorder, and these are more troublesome to friends than to the patient himself, who becomes unconscious of, or indifferent, to them.

2. Tonic spasm. A far more serious form of blepharospasm is that in which the contractions are of a tonic kind, and either intermittent or continuous. Even when intermittent, the disease is frequently most distressing, and attended with absolute danger to the patient; for he may be seized with a violent spasm of the lids at any moment, entirely destroying his sight for the time; and sup-

Lachrymation.

Electricity an aid to prognosis.

BLEPHAROSPASMUS.

1. Clonic form.

Nervous winking.

2. Tonic spasm.

A source of danger.

posing that he happens to be crossing a crowded street at this particular moment, he runs a risk of being thrown down and run over. Moreover, the affection is in other respects a most painful one, interfering as it does with work, and rendering the patient unfit for all useful employment.

Causes.—Blepharospasm often depends upon irritation reflected from the sensitive to the motor nerve. M. Wecker describes this affection under three heads, according to the source of the irritation:—Firstly, the traumatic; secondly, that depending on disease of the cornea or conjunctiva; and thirdly, upon an affection involving all the branches of the facial nerve.

In the first class of cases, the spasm is generally determined by the presence of a foreign body on the cornea or conjunctiva, the irritation of the branches of the fifth nerve, which is thus produced, being reflected through the seventh or motor nerve to the muscles it supplies. At first the spasm is intermittent, and confined to the orbicularis; but eventually it becomes continuous, and may spread to all the muscles of the face, especially if an attempt be made to open the eyelids by force. At first, perhaps, one eye only is affected, but the other may subsequently become involved.

In the second class of cases, the blepharospasm may be caused by the irritation arising from pustular conjunctivitis, or an ulcer of the cornea. The abnormal reflex action thus established, may persist even after the cause of it is removed. To this class we must refer the spasmodic closure of the eyelids in so-called strumous ophthalmia.

The third class includes cases of neuralgic tic of the face, in which the morbid condition of the fifth nerve, especially its supra-orbital branch, is propagated by reflex action to the seventh pair, causing spasm of the orbicularis. Malaria, rheumatism, sudden exposure to cold, irritation of the nerve by bony growths in its passage through the skull, or faulty digestion, may be mentioned as some of the most common causes of this form of blepharospasm.

The Treatment will of course depend upon the nature of the disease. If the spasm is caused by the presence of a foreign body in the eye, the offending particle must be removed as soon as possible; and so with affections of the conjunctiva, we must endeavour to

and disabling.

Reflected irritation.

1. From foreign bodies.

2. Pustular conjunctivitis.

3. Neuralgic.

Treatment.

Remove local cause.

Divide
sentient
nerve,

cure the local disease. But in the third class of cases, we should try to ascertain which of the branches of the fifth nerve is principally involved, and, as a guide to its discovery, we may exert pressure at different points of the surface—for example, over the exit of the supra-orbital nerve, and notice if it influences the spasm of the lid; or, again, we may examine in the same way the inferior dental nerve at the dental foramen. If we can thus discover the point of departure of the irritation among the branches of the fifth, we may very probably, by division of the nerve, interrupt the chain of nervous actions on which the spasm of the orbicularis depends. It may be necessary to divide the nerves on both sides of the face; and at first the beneficial effect of the operation may not be very apparent, but gradually the spasm passes off, to the great relief of the patient. Unfortunately, after an apparent cure has been effected in this way, the disease will sometimes return.

on one or
both sides.

Faradiza-
tion.

Morphia.

Among other remedies which may be usefully employed for the relief of blepharospasm, are electricity, the continuous current being used; and also the subcutaneous injection of morphia. These should always be tried before we have recourse to surgical interference. The injection should be made, in the first instance, over the branches of the supra-orbital nerve.

Extraction
of teeth.

We should never omit to make a careful inspection of the teeth in this form of disease; for the extraction of a carious tooth may remove the blepharospasm. In like manner, the cicatricial tissue of a wound, involving branches of the fifth nerve, may have to be dissected out to relieve the irritation it occasions in the sentient fibres. In fact, careful consideration, and a judicious adaptation of remedies will be called for, to enable us to comprehend and successfully meet the various forms of this very troublesome complaint.

Dissection
of cicatrices.

MALPOSITIONS OF THE EYELIDS AND EYELASHES.

ENTROPIUM.

ENTROPIUM, or an incurving of the margin of the eyelids, may be partial or complete, and may be conveniently divided into two classes—the spasmodic, and permanent.

1. Spas-
modic.

The first is seldom met with except amongst old people, whose skin has become lax and wrinkled. We

occasionally see cases of the kind resulting from the application of a compress and bandage, as after the operation of extraction of the lens.

The lower lid is generally affected in instances of spasmodic entropium: its ciliary margin, being curved inwards on itself, carries the cilia with it, so that the latter cannot be seen unless the skin of the lid be retracted, when the cilia assume their normal position; the irregular contraction, however, of the fibres of the orbicularis soon causes the margin of the eyelid to become again incurved. There is not only a lax condition of the cutis in these cases, but the outer fibres of the orbicularis lose their contractile power; whereas those near the margin of the lid, acting with unusual force, turn the cilia inwards in the way described. The eyelashes being thus brought into contact with the cornea, cause such an amount of irritation, that pathological changes gradually take place in its fibrous structure, which end in vascular opacity, or, it may be, destructive ulceration of the cornea.

Confined to
lower lid.

Condition
of the parts.

Irritation
of the
cornea.

Remove
the cause.

Treatment.—Should the entropium have arisen from mechanical causes, as, for instance, after the extraction of a cataract from the pressure of a bandage over the eyelids, it is only necessary to remove the cause, and after a time the orbicularis will regain its functions, and the lid be restored to its normal state. This result may be hastened by first retracting the lid, and then applying a layer of collodion, or a strip of plaster, along its cutaneous surface, so as to keep the lid in its natural position.

Apply col-
lodion or
plaster.

In the more inveterate cases, whether depending on mechanical or other causes, it will be necessary to excise an elliptical portion of the skin and subcutaneous tissues, parallel to the free margin of the lid; when the contraction of the tissues as they cicatrize will, by shortening the external covering of the lid, retain the ciliary border in its normal position.

Excise a
portion of
skin.

One would suppose, from the numerous proceedings propounded, that this was a difficult operation, whereas nothing can be more simple. A pair of entropium forceps should be used to pinch up a fold of the skin, running parallel to the ciliary margin of the lid, which may then be excised with curved scissors (*vide* Fig. 12). The amount of skin to be removed will depend upon the extent of the entropium, and may be judged of by

Operation.