cide with those of Hutchinson and others as to the absence of any fungous growth about the hairs. The disease is an atrophy, *pur et simple;* and a very interesting example it certainly affords. It is remarkable how purely local the change is; all the other tissues may be in full vigour of nutrition and development, except the follicles in the affected patches. There the scalp becomes smooth, pale, thinned, and devoid of reactive vitality. In one well-marked case, croton-oil liniment, which I prescribed, produced considerable irritation of the hair-covered part of the scalp, but none on the bald patches. Von Bärensprung ascribes the atrophy to a paralysis of trophic nerves. I do not see any ground for this assumption, and prefer to regard it as a simple loss of nutrient power in a tissue—a true degeneration. Local stimulation is the only treatment that is of any avail, and this must be very long continued.

[*To be continued.*]

Original Communications.

EXTERNAL SQUINT; VARIETIES; OPERATIONS FOR INTERNAL AND EXTERNAL SQUINT.

BEING REMARKS IN THE COURSE OF CLINICAL INSTRUCTION AT THE CENTRAL LONDON OPHTHALMIC HOSPITAL.

By HAYNES WALTON, F.R.C.S., Surgeon to the Hospital, and to St. Mary's, Paddington.

[*Continued from page* 383.]

EXTERNAL squint is very much less frequent than internal, and very seldom appears before puberty, except in connection with a diseased brain; but is common in advanced age, at which period of life it is almost sure to be induced by loss of vision from any cause. It is a fact difficult to be explained, that at the adult age, the same circumstances shall at different times excite either kind of squint. An eye is rendered useless from a blow, or disease, and it may become misdirected to either side.

The varieties of external squint are few and easily recognised. As the first, I give disease of the motor oculi, or third cerebral nerve, whereby the muscles that turn the eye inwards are paralysed, and eversion follows. There are degrees of this paralysis. There is impairment of sight, due to the loss of the adjusting power of the eye, through the influence of the ciliary muscle and the recti, and also to the state of the pupil, when much dilated. This is a common effect. But there may be confusion of vision from the loss of parallelism only. Ptosis is an usual accompaniment. Recovery from the paralysis is often frequent and perfect, so that only after it has been proved to be permanent, should an operation be undertaken; and, although the prognosis is very discouraging, practical surgery is not to be rejected, and may often be beneficially applied. The success will be according to the tonic contraction of the external rectus, and the failure according to the persistence of the paralysis. It is impossible always to distinguish beforehand between the preponderance of the one or the other of these. A speculative attempt, therefore, at amelioration is justifiable.

The second form is more common, and is very similar to the second form of internal squint. The eye can be brought to the centre of the orbit by a strong effort. It may even sometimes be inverted. The best result from an operation is to be gained here. For years have I taught that, if the eye could be brought to the centre of the orbit, and kept there for a few seconds, the operation may be undertaken with the fullest assurance of success.

The third, the commonest variety, is the double squint. It would seem to be that into which the single squint has a tendency to pass. Except produced by paralysis, it rarely commences as a double affection, and in this it strikingly differs from internal squint, in which the double affection from the commencement is common. In the marked cases, the mutual convergence is striking. In the lesser degree there is rather a deceptive appearance, the deformity seeming to alternate, but implication of the two can generally be made out. Taken separately, either may be brought to the centre of the orbit, and even more or less inverted, but they cannot be made to converge, nor yet to assume a parallel position.

The double operation is requisite in all degrees of the double deformity; and, in unequivocal abduction of both eyes, the operating may be done at once and before the effects of the chloroform have passed away, if this drug have been used. If doubt exist, there should be a careful inspection before the second eye is touched.

The operations for squint in general may be classed into those executed with the knife, and those with the blunt hook and scissors. The first have been executed in three methods, and with instruments of dissimilar fashion; I think that all of them are objectionable. The second embraces two plans: that of cutting through the conjunctiva, over where the muscle is to be divided; and the so-called subconjunctival proceeding. I advocate the former of the second class, with modifications of my own, and I use sutures, because I find it the most sure; the easiest in execution; the least detrimental; the most generally applicable; and as I fully believe, that which gives the best results, and leaves the least trace of performance.

First, as regards the operation for internal squint, I hold it to be preferable to sever the muscle close to its attachment, and therefore internal to the "ocular tunic," because it is attended with the least disturbance to the surrounding parts, and it secures the new attachment of the muscle to the eyeball, not far back from the normal one. I advise you to make yourself acquainted with the anatomy of the "ocular tunic". Its discovery is among the latest of anatomical novelties: as yet it has not found a place in works on anatomy. I have given a full description of it, with an illustration, in my work *On the Surgical Diseases of the Eye.*

The eyelids are best retracted with the spring tunic-retractor. Should the eye not be sufficiently straight for commencing, I draw it to the required position with a pair of forceps applied to the outside. Taking up a fold of the conjunctiva horizontally, I cut it through vertically opposite the lower edge of the muscle, which generally corresponds to the inferior edge of the pupil, to about a couple of lines, and then incise the subconjunctival tissue to an equal extent. The latter is sometimes divided along with the conjunctiva, but it may be thick and very dense, and need special attention; and it can never be certain that the division is effected, except the sclerotica be exposed. I now introduce the hook, secure the muscle, make it prominent, and, if the upper part be covered by the conjunctiva, as in all probability it will be, I push this off with the forceps, while I make the hook-point more prominent, and, keeping the muscle very tense, divide its tendinous expansion between the hook and the eyeball with the blunt-pointed scissors. I would rather advise a beginner to incise the conjunctiva more freely, as he will thereby take up the muscle the more readily, and there can be no particular objection against the extended incision. At any rate, scarcely more need be cut through than actually covers the muscle. The hook should always be passed a second time, to ascertain whether the operation has been completed. Besides muscular tissue, portions of condensed areolar tissue might escape division in the first instance.

It is a very common error to attempt to secure the muscle before cutting through the subconjunctival tissue.

When the tissue is thin and natural, the hook may be readily pushed through it; not so when it is thickened, as is often the case in squint of some standing, or when there has been inflammation of the conjunctiva; indeed, when so changed, I have seen it mistaken for muscle, and treated as such. I conclude by applying one or two sutures, using such a needle as that depicted in the chapter on instruments; but one carefully adapted generally suffices. This is very readily done by raising the corneal portion of the membrane with the forceps, transfixing it close to the margin, and dealing with the other edge in the same manner. I am particular about the exact position of the suture, lest there be any tension of conjunctiva; and because, when so placed, the thread is thrown off in three or four days, which is better than having to remove it. Not the least irritation ensues, and the patient is rarely ever aware that he has a stitch in his eye.

In the subconjunctival operation, the conjunctiva is divided horizontally at the lower part of the eyeball, and the hook and scissors are employed beneath the membrane. A larger aperture is required than I find necessary for the other. My objections to it are, in the first place, as regards the uncertainty of thoroughly dividing the muscle where the eye is sunken; when there is fixed inversion of the eyeball; when the muscle is shortened; in the small eyes of children and infants; when the conjunctiva is thickened and thrown into folds, and especially when the sub-tissue is likewise altered. Then, as regards the peculiar consequences, the parts are very much disturbed, the conjunctiva is freely separated, and blood is extravasated.

It is a common practice to make a counter puncture to attempt to let the blood out; but, in fact, little can be removed in this manner, because of the coagulation. I have seen very extensive chemosis and ecchymosis thus produced, even in the hands of the best operators. I have read of the effusion being so considerable that the eyelids closed with difficulty. The uncertainty of dividing any condensed tissue about the muscle that should be severed, or of any posterior adhesions, must be self-evident, and need not be dwelt on.

The use of the suture must set at rest all the objections about dividing the conjunctiva in a line with the caruncle, as rapid primary adhesion is thereby produced. It is the rare, the very rare exception not to have this. I cannot, therefore, conceive a more efficient and perfect manner of operating. The little ecchymosis, the slight redness, and the rapid removal of all trace of the operation, point to this. There is no fungous growth from the edges of the wound, a likely occurrence whenever the conjunctiva does not heal at once, and no irritation, which is common in the progress of granulation.

Failure of the operation is often due to bad operating. The operator should, therefore, be careful to divide the muscle entirely; to be certain of which, he should always ascertain, by the reapplication of the hook, that no muscular fibres have escaped; and, after the efficient performance of this part of the operation, should the eye still be adducted, he must seek for adhesions, and separate any that may be found.

There is no difference in the details between the operations for internal and for external squint, beyond that, the attachment of the external rectus muscle being a little more posterior than the internal, the conjunctiva should be divided a little further from the cornea. The hook should be passed just below the muscle, and close to its attachment to the sclerotica; or the inferior oblique muscle is liable to be taken up. The operator must be prepared to find the conjunctiva and the subjacent tissue looser and thicker on this side of the eye; and then the tendon of the muscle does not admit of being so definitely raised and exposed as in the internal operation, in consequence of being broader; it appears more like fascia than tendon. The operation may, therefore, be said to be the less easy of the two; and there can be no doubt that it is far more likely to be ineffectually performed. I always apply sutures, for, although less important here, still they are very serviceable.

I understand that some of the warmest advocates for the subconjunctival operation do not apply it to external squint. I have not seen it adopted.

Of course, all that has been said respecting care in dividing the internal muscle and seeking for adhesions, must be understood with reference to external squint.

FOREIGN OPINIONS OF THE NATURE OF SYPHILIS.

Collected by M. Berkeley Hill, F.R.C.S., M.B.Lond.

V.—Ricord of Paris.

Having detailed the opinions of several continental *doctrinaires* in syphilis, I may be permitted to conclude the series with a short relation of Ricord's views on the subject, as related in his *Leçons sur le Chancre* (2nd edition, Paris, 1860), and reiterated in his lecture delivered in the Hôtel-Dieu on a case of syphilis supposed to have been contracted through vaccination. This lecture was reported in the *Gazette des Hôpitaux* for January 28th and 30th, 1862, and is the latest occasion on which he has professed his opinions.

Many years ago, in his early writings on syphilis, Ricord separated gonorrhœa from other venereal diseases, but upheld in his celebrated *Letters* the doctrine of Hunter that all venereal ulcers were provoked by a common poison. In the eighteenth letter, he wrote: "So far, have we every reason to suppose there is but *one* syphilitic virus. It appears to me reasonable to consider that chancres, which under certain conditions to be produced at will begin in the same way, are also generated by a single cause; and that their later developments owe their characters to the individual peculiarities of the persons affected." Again, in his nineteenth letter, he said: "If my meaning was comprehended in my last letter, you will have perceived that I acknowledge the syphilitic poison to be single, although experiment has not yet placed it beyond doubt. Nor do I seek to explain the varying severity of this poison by attributing to it different degrees of virulence—an explanation put forward by some observers; but rather by a modification of its effects induced by the peculiarity of constitution of the person affected. Also, in spite of Bell's observations and of those of others, no one is justified in concluding that a severe case of syphilis generates a contagious principle which will cause severe forms of the disease where it is inoculated, because our observation teaches us that the opposite is frequently the case."

Until the year 1856, Ricord continued to profess opinions in harmony with those enunciated in his early letters, and in accordance with those of Hunter; notwithstanding that Bassereau in 1852 published his treatise on syphilis, in which he declared his conviction that venereal ulcers were of two kinds, propagated by two distinct contagious principles. At length, in his clinical lectures of the year 1856, Ricord struck his colours as a unicist, and declared he should henceforth fight in the dualist squadron—a promise which he has redeemed most thoroughly, but still refuses to countenance the leading syphilitic writers in many of their pretensions: for instance, the power of contagion possessed by secondary forms of syphilis generally, or by the blood of syphilised persons; though he has lately shewn symptoms of a disposition to accept the former of these dogmata. In his *Leçons sur le Chancre*, published in 1857, and republished with copious notes and additional observations by M. Fournier in 1860, he commences with a quotation to the effect that the foolish man is he