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DELUSIONS

IN

EYE SURGERY.

BY

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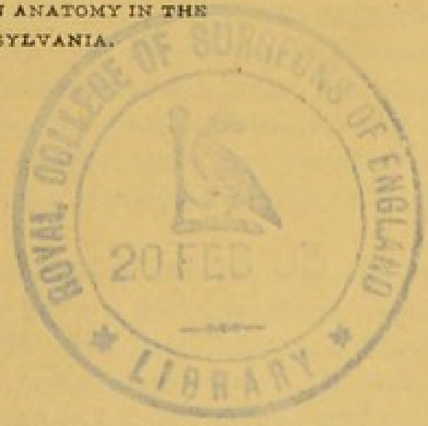

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DELUSIONS IN EYE SURGERY.[1]

To bring before you in an interesting manner topics of practical value, relating to surgery, is a much more onerous obligation than to confine my remarks to the constitutional limit of thirty minutes. The ever increasing weariness of his audience must compel every observant speaker to fulfil the latter obligation; but in meeting the other duty he has no aid from his hearers, who sit complaisantly waiting for the new and valuable, often never given them. I can do no better perhaps on this occasion than give my personal views on some of the subjects constantly brought to my attention by daily routine work. Since much of my time is occupied in that branch of surgery which pertains to diseases of the eye, and as there is no special Address in Ophthalmology this year I have thought it not improper to touch, to-day, upon "Delusions in Eye Surgery," which may be looked upon as a sort of supplement to a former address on "Delusions in General Surgery."

Ophthalmoscope.—It is a very erroneous idea that no one need acquire a knowledge of ophthalmoscopy except that man who expects to limit his practice to diseases of the eye. My own experience in discovering unsuspected Bright's disease and basal disease of the brain, and above all in proving the probable absence of these and similar conditions by an examination of the ocular fundus, makes me feel sure that the graduate ignorant of the use of the ophthalmoscope is seriously handicapped in the race for professional success and income.

A cheap instrument and an ordinary lamp, or even a candle, are all that is needed; provided the observer have a little practical experience in the use of the ophthalmoscope itself. If a good Argand burner or lamp is used, it is not even necessary to have a dark room. I seldom shut the daylight out of my office in examining the retina and intraocular structures; and when I draw the curtain over the skylight it is never so dark as to interfere with my seeing every object in the room. The room with blackened walls, from which every ray of outside light

1 Address in Surgery of the Medical Society of the State of Pennsylvania, for 1889.

and every breath of fresh air is excluded, such as those in which many of us have studied ophthalmoscopy, is entirely unnecessary for the practical work of the consultation room ; though it is at times needed for interesting theoretical studies. It is thus seen that no paraphernalia are needed for practical ophthalmoscopic work ; while the ophthalmoscope itself is almost as necessary for the satisfactory practice of surgery as is the clinical thermometer.

Refractive Errors.—The correction of refractive errors by retinoscopy, or other ophthalmoscopic methods is delusive. The observer may, I admit, reach a result which is valuable in very young children and helplessly ignorant adults, because the more accurate examination by means of test lenses and test letters is then unavailable ; but for accuracy of result the examination by test lenses is unsurpassed.

The attempt to correct astigmatism and hypermetropia without paralyzing the accommodation muscle with atropine, or other mydriatic, is even more delusive and uncertain. I have more than once seen hypermetropes wearing concave glasses given by oculists who had mistaken a spasm of accommodation for near-sightedness. This error would never have been committed by such learned ophthalmologists, if they had not attempted the impossible. My case book shows many long-sighted persons who on first examination seemed to require a concave lens, but whose apparent near-sightedness soon became a long-sightedness under the use of atropia or homatropine.

Such patients when reading may even hold the book close to their eyes, thus assuming the very pose of a myope. To prescribe the spectacle lens thus indicated would be to give at once better vision, perhaps; but future aggravation of symptoms must be the result of such malpractice.

In adults approaching the senile period atropine must be employed with caution, as it may in rare instances induce glaucoma and cause dangerous inflammatory symptoms. Fortunately patients at this age have less focusing power in the ciliary muscle, and seldom require mydriatics in determination of the refractive condition.

Another popular delusion with which I often have to contend and which medical men frequently share with the laity, is that a myopic or near-sighted eye is a strong eye. Patients fear blindness because of the pain and nervous symptoms associated with hyperopia or long sight, but consider near-sightedness a mere disadvantage in vision, compensated for by the supposed strength of a near-sighted eye. Nothing can be further from the truth than this opinion. Hypermetropic eyes do not become blind ; but myopic eyes may from choroidal, sclerotic and retinal changes. Progressive myopia of a dangerous type is fortunately not excessively frequent, but its power of destroying vision is well known to oculists. This delusion as to the harmlessness of myopia deters many from early consultation with the ophthalmologist, whereby precious time is often lost and changes allowed to become established that might have been prevented by rational treatment.

Again, it is often difficult to convince persons that the wearing of correcting lenses is a therapeutic or prosthetic measure. They argue that to begin the use of spectacles is deleterious because thereafter the patient

cannot see without them ; forgetting that while in some cases the necessity for their use is temporary, in others it is continuous because of the pathological condition of the eye. As the orthopædic surgeon prescribes crutches, braces, or high sole shoes, sometimes as a means of cure, sometimes as an adjuvant to an irremediable condition, so the ophthalmic surgeon uses his prisms and his cylindrical and spherical lenses. It is astonishing too how many intelligent persons believe that any defective sight, less than total blindness, ought to be relieved by spectacles. To speak of a man being partially blind when the exterior of the eye shows no blemish seems to them a falsehood ; and they expect lenses to correct the so-called "near sight."

Many physicians seem unfamiliar with the fact that a tilted head or half closed eye is frequently not an affectation but an indication of astigmatism or other refractive defect. The unusual pose or grimace in such cases is due to the effort to see distinctly and is readily curable by suitable spectacles.

Strabismus.—An ophthalmic delusion resulting in disastrous consequences to vision is the belief that strabismus, or cross eyes, occurs in young children as a result of imitation of a strabismic companion or attendant. As a result of this erroneous belief the child is reprimanded and intelligent medical skill neglected. The muscular deviation at last becomes constant or so marked that the parents are driven to consult an oculist. Then they hear to their surprise that the deformity is due to a congenital optical defect in the eyes ; and are told that the visual power of the defective organ has been by delay hopelessly lost. The disfiguring deviation can be rectified by operation to be sure, but the eye remains a partially blind one during the remainder of life. All should be familiar with the connection between hypermetropia and strabismus, and should teach every parent that cross eyes always need immediate attention from a skilled oculist.

Silver Nitrate.—The erroneous belief that silver nitrate is a panacea for sore eyes has caused loss of vision to many persons. It is seemingly used by some physicians in all ocular inflammations without an attempt at diagnosis. Every ophthalmologist of experience has seen irremediable blindness from complete circular adhesion of the iris to the anterior capsule of the lens, because the attending physician failed to recognize a syphilitic iritis. The latter has dropped solution of silver nitrate or other astringent into the eye, thinking he had inflammation of the conjunctiva to deal with ; and thus has permitted plastic material to glue the iris and lens together as a result of the iritic inflammation. It should be known to all medical men that silver nitrate, though a good remedy in conjunctival disease, can, even in that case, be readily substituted by other remedies and that its use in iritis is malpractice. It would be better if the general practitioner never prescribed silver nitrate for any ocular inflammation ; since even in conjunctivitis it may do harm by staining the tissues if used for too long a period.

Atropine.—It is much safer to use a four grain solution of atropine whenever there is doubt as to the character of the inflammation than to use silver nitrate or any other astringent solution. If the case is one of

iritis the atropine will prevent inflammatory adhesion, if used early enough and in sufficient strength; if conjunctivitis or inflammation of the cornea exists the atropine will not do harm. It is only in patients with a tendency to glaucoma that the use of atropine is to be feared. As these patients are comparatively few and usually of advanced life the danger of harm being done by erroneous diagnosis is not very great. Under forty years atropine can scarcely ever do harm; and above that age only seldom.

Scarification.—Silver nitrate has been the cause of much indirect harm because of the belief that it is indicated in all ocular inflammations. I seldom use it, even in conjunctivitis, except in the purulent form of that disease. I believe it equally true that many professed ophthalmologists have a delusive fear of scarification in conjunctival engorgement and inflammation, and use instead various astringent remedies much less effectual in effecting a speedy cure. The immediate ease often given to my patients by free superficial scarification of the swollen and angry looking conjunctiva, and the rapid return to health resulting from its daily or bi-weekly repetition convince me of its great value in both acute and chronic inflammation of this mucous tissue. I supplement this treatment by hot water bathing and astringent eye-washes used at home.

Foreign Bodies.—A curious popular delusion it is which teaches that a particle of dust or cinder blown into an eye by the wind may best be removed by rubbing the uninjured eye. Many have found by experience that rubbing the unaffected eye is quickly followed by relief of pain in, and rapid recovery of, the other eye; while rubbing the organ into which the sharp particle has blown usually results in increased pain and discomfort. This apparent proof by experience is negatived by the experience of those who rub neither eye, but simply wait with the injured eye quietly closed, until the tears wash out the offending mote. This is the philosophy of the cure. If the eye is rubbed, the sharp edged particle is embedded by pressure in the conjunctiva or cornea and cannot be removed by the flow of tears due to the irritation of its contact. If the patient, however, will content himself with simply closing his eyelids with the eyes rolled downward, the flow of tears will in a few moments carry the little particle of dust outside of the conjunctival sac. Hence it is that while he occupies his meddlesome fingers with rubbing the well eye, he allows the painful eye to cure itself by physiological therapeusis.

Cataract Extraction.—There are some curious delusions, or superstitions I may almost call them, about the extraction of cataract. Some operators never use a knife for the corneal incision after it has been once previously used for that purpose. If there is no one in his vicinity who can put a keen edge and point on the knife, and the surgeon is unable to do so himself, I can understand his need to send cutting instruments to a metropolis occasionally; but I fail to perceive how a single corneal incision can so dull a knife as to require its retirement from further service. I have used the same edge time and again for several operations of this kind; and am constantly using resharpened knives which have done duty in my own and other hands for many years.

Success in all branches of surgery depends much more on dexterity of the fingers than the newness of the knife. A good surgeon should be able to put a creditable edge on his own knives ; though in the case of the delicate knives of eye surgery this is hardly to be expected.

For years the dressing and after-treatment of cataract extraction have been most abominable and unreasonable. After operation on even a single eye, both eyes have been so bundled up with cotton and bandages that the unhappy patient has been kept in absolute blindness for two weeks or more, the tears and secretions from the wounded organ dammed up within the lids, and the cutaneous surface of the lids and cheek macerated with what secretion succeeded in passing the barrier of the closed and compressed eyelids. In addition the patient is often kept in an absolutely dark room, through whose closed windows and doors a breath of fresh air can scarcely enter.

Is it strange that severe conjunctivitis, keratitis, or iritis, is often found when the surgeon removes the heating dressings to take a timorous and momentary glance at the offended organ ?

Recently light has dawned upon such mistaken and traditional surgery ; and many ophthalmic operators have come to adopt methods similar to those which I was taught by Levis some fifteen years ago and which I have always followed in every cataract I have ever operated upon. The fact that he in his most extensive practice had seldom ever a failure from causes due to the operation or treatment, and that I in a less number of years' experience have had results not much inferior to his prove to me at least the advantage of simply closing the eyes with half ellipses of adhesive plaster applied to the upper lid. This is done in such a manner as to allow the secretions to drain away constantly and permit the frequent instillation of atrophia without disturbing the dressing.

I am convinced also that it is a delusion to compel patients to wait a long time for spontaneous ripening of senile cataract, when the vision of both eyes is already so defective that business or pleasure is seriously interfered with. I have, I believe, hastened ripening of the cataract in such a condition by preliminary iridectomy and massage of the anterior capsule ; and I have within a few weeks, in another instance, certainly hastened cure by extracting the lens while not fully ripe. As the patient on the twenty-ninth day after operation had, with correcting lens, vision equal to $\frac{6}{\text{viii}}$, which is nearly perfect vision, the success of the operation on the still unmatured cataract cannot be questioned. Such an excellent result at so early a date is seldom equalled in operations on fully ripened cataracts ; and is the more surprising here because the man, who went about the room after the first day, had not only a fall during convalescence but also a severe attack of malarial neuralgia, which kept him in bed for several days during the latter part of that period.

Glaucoma.—An appalling delusion is that which mistakes glau coma, a very serious disease of the eye, for neuralgia of the brow. All physicians should recollect that pain about the brow, coming on in paroxysms and associated with deterioration of vision, may be a symptom of glaucoma ; and that glaucoma, whether acute or chronic, goes on to

total destruction of vision. The blindness may be complete in a few days or hours in acute glaucoma; or may not amount to absolute loss of vision until months or years have elapsed in chronic glaucoma. The neuralgic pain of glaucoma is more apt to be felt down the side of the nose than is the pain of any orbital neuralgia. At least this seems to me to be a clinical fact. No absolute diagnosis is possible without ophthmoscopic examination; but the character of the pain, the impaired vision, which by the way improves between the paroxysms of pain, the colored halo when the patient looks at a candle flame, and the insensitiveness of the cornea when touched with the end of a piece of thread are good rational indications of the imminent danger. Glaucoma should always be suspected when such conditions, or several of such symptoms, are present.

Artificial Eyes.—There is a curious belief in regard to artificial eyes, which pertains however to manufacturers of glass eyes rather than to the surgeons who insert them. It is that the upper edge of the glass shell must have a notch in it to correspond with the elevation made by the pulley-like attachment of the superior oblique tendon. The truth is that no such notch is needed and that glass eyes made, as it is supposed, to fit into the left orbit frequently do better for the right orbit; and that on the other hand right eyes of glass are often the best for the left orbit. I never attempt even to keep my large stock of glass eyes separated into "rights" and "lefts," but have them promiscuously arranged, except as to color. Whether the notched edge goes up or down makes no difference. It is simply a question as to what shape sits best and looks most natural. The cicatricial changes made in the orbit by the original disease or by the operation determine the shape of glass eye most satisfactorily worn. It is entirely unnecessary to have a notch in either edge of the glass shell.

Exophthalmos.—It is to be regretted that the profession clings to the idea that it is difficult to relieve the unseemly bulging of the eyes, which sometimes persists after exophthalmic goitre has been successfully treated. A similar protrusion of the globe occasionally remains after operations for strabismus. These disfiguring conditions can be completely removed by the simple operation of freshening the edges of the eyelids at the outer canthus and putting in one or two sutures. The procedure if done under cocaine is so trifling as scarcely to justify the name of operation.

Iritic Adhesion.—Finally, I shall call attention to the unreasonable objection to operating on eyes hopelessly blind from complete adhesion of the iris to the anterior capsule of the lens. In these cases I believe an attempt should be made to restore some degree of vision by iridectomy and extraction of the lens. This is, I think, not very often attempted, because the prospects of success are far from good. Still, as vision is entirely destroyed, there is no danger of losing anything from undertaking an operative procedure; hence one that offers even such a slight chance of success should be advocated.