

cally by setting up a species of molecular gangrene; and thus represent the same kind of action as that which is exerted by the pernitrate upon cancerous tissue, only upon a larger scale? And, if so, is not the pernitrate a more ready means of getting rid of the induration than pytalism? I grant the use of the mercury, both in its curative character, as an adjunct, and as a preventive, so far as constitutional syphilis is concerned, to be most important; but would it not be better, in all cases admitting it, to combine the two? I have repeatedly done so, and with the best effect. But it must be remembered, as the destructive powers of the caustic are made to penetrate deeper and deeper into the chancrous mass, it is not necessary, were it possible, to continue it until the whole of the induration is gone, but only until the wound shews unmistakable evidence of healing in; for the cicatrix, in these cases, has a peculiar induration which, at least, resembles that of the diseased tissue, and cannot be got rid of.

SOME OBSERVATIONS ON THE TREATMENT OF THE IDIOPATHIC INFLAMMATIONS OF THE EYE.

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THE idiopathic inflammations of the eye may, generally speaking, for the purposes of treatment, be divided into three principal groups: those in which the conjunctiva, those in which the cornea, and those in which the deeper structures—sclerotic and iris—are the chief foci of the inflammation. In accordance with this view of the subject, the following will be found the most practical classification of the more ordinary forms of ophthalmia.

I.—INFLAMMATIONS OF THE CONJUNCTIVA.

These are characterised by vascularity of the membrane, either general (*e. g.*, in catarrhal and purulent ophthalmia) or local (*e. g.*, in pustular ophthalmia). The vascularity mostly commences in, and is principally situated in, the eye-lids. Conjunctivitis is almost invariably attended with a discharge from the mucous membrane, varying from a simple aqueous (as in the conjunctivitis accompanying scleritis and iritis) to an intensely purulent discharge (as in the purulent ophthalmia of infants). The patient's sensations afford very valuable therapeutic indications. The pain is situated in the eyelids, and is mostly compared to that of grit or sand in the eye, accompanied by a general feeling of heaviness and stiffness about the lids.

The principal forms of conjunctivitis may be distinguished by the nature of the discharge.

(1). *Simple conjunctivitis*: discharge aqueous. (2). *Catarrhal ophthalmia*: discharge muco-purulent, slight or moderate in amount. (3). *Purulent ophthalmia* (including the "ophthalmia of new-born infants" and "gonorrhœal ophthalmia"): discharge purulent, copious, and thick. In all the preceding forms, the discharge appears to proceed from the general surface of the conjunctiva (chiefly its palpebral surface); in (4) *pustular ophthalmia*, the discharge is localised to small pustules, which are generally met with around the margin of the cornea, and are in connexion with a leash of injected vessels.

All the preceding forms of ophthalmia I have now for the last year treated by a method which I first learned at Utrecht, and which, I have no hesitation in saying, is greatly superior to the ordinary mode of treatment adopted in this country.

"If we take the trouble to evert both eyelids in the general run of ophthalmia met with in practice, we shall feel surprised at the large proportion of cases in which

the *palpebral conjunctiva* is the chief seat of the inflammation. Having satisfied ourselves of this fact, the necessary inference is that, if we wish to cure the inflammation, our applications should be directed to the structure primarily affected. Patients are generally told to let the drops 'run into the eye'; that 'if they merely go outside the eye, they will do no good'. To this latter statement might very reasonably be added, 'and will do no harm'—a qualification which does not apply to the former direction. In truth the contact of irritant eye-waters with the sclerotic and cornea is more frequently calculated to do harm than good. *The surgeon should always apply his eye-waters himself*; evert both eyelids, taking care not to separate their edges too widely (otherwise the sclerotic and cornea will be injuriously exposed); then allow a drop or two of the collyrium to flow along the thumb-nail, from a camel-hair brush, down on to the palpebral conjunctiva. Thus all chance of contagion is avoided. After a few seconds, wash the residue of the eye-water carefully off with a second large brush dipped into warm water. The eye-waters I employ are nitrate of silver (grs. x and iv to ʒj), with or without atropine (grs. iv to ʒj). This latter collyrium will be found of signal service in the inflammations associated with irritability of the eye and photophobia." (*Medical Times and Gazette* for Jan. 26th, 1861.)

Most persons will take an exception to all that has hitherto been advanced in the case of the so-called "scrofulous ophthalmia". All I will here observe is, that I do not regard this affection as primarily an inflammation, in the ordinary acceptation of the word; nor do my remarks on treatment apply to these cases, unless associated with conjunctivitis. I regard pure scrofulous "ophthalmia" rather as an hyperæsthetic condition of the retina, as evinced by the photophobia, and consequent spasm of the eyelids. This view is borne out by the nature of the remedies which we find most efficient in its cure: tonics (especially quinine in sufficient doses, and cod-liver oil), alteratives, and certain specific remedies, of which I consider tincture of belladonna as the most certain. The following combination I generally find answer well.

℞ Tincturæ belladonnæ, chloroformi, aa miv; mucilaginis, misturæ ferri comp., aa ʒj.

Scrofulous "ophthalmia" is then, according to my views, but the local manifestation of a constitutional disease; whereas the ophthalmia described above are strictly local affections. That scrofulous "ophthalmia" predisposes to real inflammations of the conjunctiva, I believe; but then this true ophthalmia is a superadded disease, and requires to be treated on the principles before advocated.

II.—INFLAMMATIONS OF THE CORNEA.

The inflammations of the cornea are characterised by greater or less opacity of that structure. This opacity is, as a rule, out of all proportion to the vascularity, which an attentive examination will show to precede it. In many cases, the only pathological vessels seen are those which form a sort of fine-toothed-comb corona round the margin of the cornea, on which they encroach about half a line. It is not difficult to understand how a limited degree of vascularity may lead to an extensive opacity, spreading by an infiltrating action through the laminated spongy structure of the cornea. This is often well observed in the opacity of the cornea resulting from granular lids, where a few isolated, straggling vessels are often associated with the highest degree of opacity of that membrane. This "granular corneitis" invades most commonly the upper half of the cornea, on account of the granulations ("trachoma" of Arlt), in which it has taken its origin, being most developed in the upper lid, which, moreover, from the act of winking, under any circumstances, exercises greater friction on the cornea than the under-lid. After a time, secondary

changes occur in the granulations, leading to atrophy of the conjunctiva, entropion, and consequent increased friction of the cornea by the lashes, terminating ultimately in its complete obscuration, a most distressing state of irritation of the eye, and, in extreme cases, blindness. The most efficient treatment of this form of corneitis is the application of solid nitrate of silver to the granulations of the upper lid, which it is necessary to evert for the purpose, taking care to wash the nitrate afterwards well off with warm water with a camel-hair brush. In the entropic stage of the disease, it is generally necessary to resort to operative measures, which it is not within the scope of the present remarks to enter into further. All I will finally add under this head is, that in all cases of corneitis, *but more particularly in those in which the upper half of the cornea is affected*, it is our imperative duty to evert and examine the upper lid, lest we may (what over and over again occurs), be treating the result for the cause.

An important form of corneitis (from its chronic nature and its deleterious influence on vision) is often met with, especially in early life. The cornea presents the aspect of glass which has been breathed upon—a uniform ground-glass-like opacity of its whole thickness. After a time, the opacity often acquires a still graver form, that might be compared to that of fine white porcelain, and is in some cases accompanied by a bulging of the cornea. I have very often seen the first stage of this *interstitial corneitis* preceded by dense meshes of minute florid vessels on the surface of the cornea. This form of corneitis has been regarded by Mr. Hutchinson (and is so by my friend Mr. Critchett and other able ophthalmic surgeons) as of a specific nature, having a remote origin in hereditary syphilis. I must, however, say that, from the recorded histories which I possess of many such cases that have come under my observation, I am far from convinced of the general correctness of this conjecture. That the general malnutrition often met with in the children of syphilitic patients may (as in the experiments of Chossat and Magendie on the starvation of animals) evince itself in the non-vascular structure of the cornea, need not surprise us; but I think the vast amount of syphilis that exists (multiplied, it must be remembered, in the children of the subjects of the disease) in comparison with the number of cases of this so-called specific corneitis, is of itself a strong argument against any such causal relation. The best mode of treating this form of corneitis is, in my experience, the local application of oil of turpentine (first introduced into ophthalmic practice by my friend Dr. Snellen of Utrecht) variously diluted with olive oil, warm fomentations and generally tonics, more especially chalybeates, the disease being very often associated with anæmia.

III.—INFLAMMATION OF THE SCLEROTIC AND IRIS.

In both forms of inflammation, one of the most important characteristics is the nature of the pain. It is deep-seated; and at the commencement of the disease, as I think I have remarked, generally referred to the eyeball, but soon after to the supraorbital, temporal and malar regions, and most commonly localised by the patients themselves "to the bones," as it were—in a word, to the branches of the fifth nerve. It is always severe, sometimes rising to an intensity, such as to deprive the patient of sleep; often of a pulsatile, throbbing character; although, in comparison with the commonness of its origin, excessively rarely associated with the formation of pus. The vascularity is of a dull, venous, fasciculated character, and generally most marked around the cornea ("cyclitis" of the German authors). If the iris is implicated, the pupil is sluggish or altogether incontractile, and often irregular. Synechia is often detected, and the diagnosis of iritis completed by the instillation of atropine—a measure, which I must

strongly insist upon should never be omitted in a suspected case of iritis. Under any circumstances, the atropine can do no harm, and may reveal the true nature of the inflammation, which without this agent might be altogether masked. This applies especially to those cases of iritis in which the exudation of lymph is out of all proportion to the apparent changes in the texture of the iris itself.

The treatment which I pursue in these cases originated, as far as I know, with myself. It consists in the administration of small doses of morphia. At the time of my publishing the first cases treated in this manner,* my experience of it was too limited to enable me to speak very authoritatively on the subject. But during the last two years I have adopted it, with few exceptions, as my only plan of treatment. I generally commence with a quarter grain of morphia every third or fourth hour, directing the patient to increase the intervals of the doses in proportion to their effect on the pain. In some patients, one-third, or even half a grain, will be found the more appropriate dose. The only local applications I employ are warm fomentations; and, if it be a case of iritis, belladonna ointment above the brow to counteract the effects of the disease and the morphia on the size of the pupil. I have now treated a very great number of cases of scleritis and iritis by morphia, and can therefore with great confidence speak to its efficiency in controlling and curing these diseases, in which depletion and mercurialisation have hitherto and are even to the present moment largely employed. Indeed, I can say that, with some exceptions (traumatic inflammations, especially after extractions) I have for the last two years hardly used a leech or a blister in my ophthalmic practice—much less cupping or venesection. I find I can cure the vast majority of the ophthalmic without, more quickly, and with far less distress and annoyance to my patients.

Reviews and Notices.

A SYSTEM OF SURGERY, THEORETICAL AND PRACTICAL, IN TREATISES BY VARIOUS AUTHORS. Edited by T. HOLMES, M.A. Cantab., Assistant-Surgeon to St. George's Hospital, and Surgeon to the Hospital for Sick Children. In Four Volumes. Vol. II. Local Injuries: Diseases of the Eye. Pp. 895. London: 1861.

A VOLUME consisting of nearly 900 pages, which is devoted to a thorough examination of the nature of Gun-shot Wounds; of Injuries of the Head; of Injuries of the Back; of the Face; and of the Neck; of Injuries of the Chest; of the Abdomen; and of the Pelvis; of Injuries of the Upper and of the Lower Extremities; and which concludes with a very full account of the Diseases and Injuries of the Eye; merits more attention than our space enables us to afford it here. Nor is the space allotted in our JOURNAL for a notice of such a work sufficient to enable us to do justice to the various contributors for the manner in which their share in the undertaking has been carried out.

The enumeration of the articles which form the materials of this volume, will alone satisfy the reader that the work is essentially practical; and a glance at the names of the contributors will show that experience is not wanting among them—ex-

* "The Antiphlogistic Powers of Morphia" (*Medical Times and Gazette* for December 31st, 1859), where the *modus operandi* of the treatment is fully entered into. At some future period, I hope to publish an extended series of cases, which I have treated by this method.