RG Dickinson

R. G. Dickinson

1854
A most creditable piece of writing; you
embracing too much; but interesting as coming
down the efficiency of the Words Burton and
Tristoli—when Ophthalmia is ripe.

Thesis
on
Ophthalmia
by
Robert Graham Dickson

"Nunc spectant lacros oculi, laboravit ipse,
Multaque corporibus transitione nocent. " (Ovid)

Edinburgh
1854
The eye is one of the most sensitive and delicate organs of the body, and from its situation and functions is liable to many accidents and diseases, the nature, treatment of which are now happily better understood than they were formerly.

Many of the diseases of the eye depend upon a variety of constitutional causes, which must be understood before we can cure, or alleviate the complaint which they occasion. The surgical diseases of the eye are more complicated, require a delicacy of hand, quickness of perception which many persons do not possess; for they are foreign to our present purpose, they will be entirely omitted from the present lecture. But those which fall under the care of the Physician are not unlike diseases in other parts of the body, though at first, perhaps, somewhat more difficult to understand.

Every tissue of the eye, perhaps, both physical and vital properties peculiar to itself, and therefore suffer differently from the several processes of Inflammation. In general, the modifications of Inflammation from difference of texture in the part affected, are displayed with much tincture in this organ; in some cases however, these modifications can be
inflected only from their consequences, by attentive observation of the desquamation which remains in the organization, or in the function of the part which has suffered; while in other cases, owing to the delicate texture of the part, or its hidden situation in the eye, the modifications in question may escape detection.

There are other circumstances besides difference of texture, which modify the inflammatory affections of the eye causing its diseases to be occasionally very perplexing in the treatment. They are under the influence of peculiarities of constitution, of constitutional diseases, and are subject to innumerable variations from the influence of sympathies.

Sycosis, syphilis, and gout are each of them capable either of exciting inflammation in different parts of the eye, or communicating to an inflammation exited by other causes, such differences in character as often to render it difficult to recognize disease with which we are all acquainted in its simple or idiopathic form. By the influence of local sympathy, inflammation of one texture of the eye never takes place without extending in some degree to the texture with which the first affected is in contact; by the same influence, an inflammatory disease originating in one texture of the eye is communicated.
to several other textures, the inflammation of the superficial tissues being communicated to those more deeply seated, conversely, that of the internal parts spreading outwards; while each texture obeys its own laws of morbidity action, the whole organ in this way may become involved by what had at first a very limited existence, perhaps a very trivial aspect. When we reflect therefore on the innumerable combinations which may take place among the inflammatory diseases of the eye, the many causes by which these diseases may be modified, we shall be convinced, that there can be few subjects requiring descriptions and explanations of morbidity actions and changes, which are more difficult to discriminate than those diseases which have been swept together under the name of opthalmia. To consider these actions and changes individually, only in single texture of the eye, at once, may seem to lessen the difficulty, but, as these are never exhibited separately, in nature, a division based upon this principle would only perplex those bent upon its study, by the diversified complications of morbide phenomena, which they will meet at every step of their progress. Great advantage will accrue therefrom, an accurate classification
of the Ophthalmia.

It is not my intention however to enter into the details of a minute scientific arrangement of the Inflammatory affections of the organ; my purpose in the present dissertation is to give a concise, plain, practical description of Ophthalmia; enumerate its chief varieties; point out its most approved method of treatment. I have therefore preferred a brief practical nomenclature to the more elaborate technical plan adopted by Doctors William Makepeace in his admirable treatise on the diseases of the eye. A work that I have repeatedly consulted while writing the present dissertation.

The term Ophthalmia is at present used to denote Inflammation of the Eye generally; yet conveniently expressed in one word what would otherwise require more. Like most other inflammations, it is characterized by Redness, Heat, False 4 Pain; the general symptoms of Ophthalmia differ little from those of Inflammation in other parts of the body, only in as much as they undergo modifications from the peculiar structure and functions of the organ. The inflammation (as already stated) may be limited to one of the tunics of the eye, whence it oftentimes extends to surrounding...
tissues, it may even spread in this manner till the whole organ is involved, or it may be confined to one eye, or may affect both simultaneously; or first one eye, then the other; may be affected. Inflammation affecting one particular tissue, whether it be of an acute or chronic form, is generally characterized by some peculiar symptom or appearance; thus inflammation of the conjunctiva may be easily distinguished from inflammation of the retina, both from that of the iris.

The symptoms which indicate Ophthalmia, may be divided into Local and Constitutional.

A tolerably correct notion may be in general be formed of the kind of Ophthalmia which is present, either by merely looking at the Inflamed Eye, or by observing the arrangement of the enlarged Blood vessels, or by hearing the patient's account of his sensations, especially the kind of pain with which he is affected. There are two kinds of Objective and Subjective symptoms, that is what are afforded to the direct examination of our own senses; what are obtained from the testimony of the patient. Thus, when the arrangement of the Blood vessels is reticular, or at some places freely with one another, you can discern aside by pressing the finger on the eyelid, ease
of a scarlet hue, the inflammation is superficial, and seizes in the conjunctiva. If on the contrary, the arrangement of the bloodvessels be gonalar, they are small, their like, are never very tortuous, but seem like radii towards the cornea, forming not a network, but a halo of a pink colour, over which the conjunctive in easily made to slide, this arrangement indicates deep seated inflammation belongs more especially to Vesicative Wurites. On the other hand, when instead of the present arrangement, the enlarged vessels occupy only one side of the eye, are red disposed into more fascicles, which often consist of a few vessels only, these running towards the cornea, terminating in a phlyctenula or punctule, or penetrating into the substance of the cornea, are seen converging from its circumference towards its center, this arrangement belongs to the Vesiculous varieties of Ophthalmia. Two different kinds of pain attend the Ophthalmia; the one being characteristic of inflammation of the conjunctive, the other, of that affecting the scleritis and iris. The former is uniformly complained by the patient to the feeling which is produced by sand in the eye; it is most felt during the day, especially in the morning, when the eyes begin to be moved; the latter is
pulsatory, affects the circumorbital region as much as the eye itself, is striking, nocturnal, commencing after sunset, increasing in violence till after midnight, subsiding towards sunrise; scarcely felt during the day, but returning about the same hour in the evening as when it commenced. Ophthalmia attended by the conjunctival, or sandy pain only, are generally curable by external applications; those which are accompanied by the circumorbital or pulsatory pain, always require venesection, indicative of extension of the inflammation to the globe of the eye. The intolerance of light, or Photophobia, is another symptom more or less distinctive of the different varieties of Ophthalmia. External Ophthalmia, or Conjunctivitis, is attended with very slight intolerance of light; on the contrary, when the internal tissues of the eye are inflamed, this intolerance of light becomes very great. In cases of Serofulosa Ophthalmia it is excessive; they receive the appellation of Photophobia Serofulosa. All these symptoms are commonly increased by motion of the eye, or of its coverings, by exposure to light. In superficial affections of this organ, the symptoms are in general local; but whenever the inflammation is
deep-seated, it is attended with severe, shooting pain through the head, fever to a greater or less degree commonly takes place. The predisposing causes of Ophthalmia are nearly the same as those of inflammatory disease of other organs. Temperament, idiosyncrasy, consequently hereditary disposition favour its occurrence. Most diarrhoeis, especially the Scrofula, has the most remarkable effect, treat the Gouty & Rheumatic. These not only dispose to, but also modify the disease its consequences. Climate has a much more manifest effect. The excessive cold, reflected light of hyperborean regions, the great warmth, dryness, & reflected heat of some countries, especially the Barbary coast, Egypt, Arabia, heightened by the particles of fine dust floating in the air, not only predispose to, but excite Ophthalmia. Great excitation of the eye; various occupations; the suppression of accustomed discharges; a plethoric habit impairs constitutional power; a catalectic state; error in diet; inordinate indulgence of the sexual organs, are all of them predisposing causes of this disease. The exciting causes of Ophthalmia are numerous & diverse. Injuries, the irritation of mechanical & chemical substances applied to the eye; carious teeth,
the introduction of contagious effluvia, or secretion, excessive secretion of the organ, fogs, exsorption of the eye to cold, venenum of air, too full living, abuse of intoxicating liquors. The eye moreover participates with other parts, frequently in a very remarkable degree, in the inflammatory state characterizing the scrothuma, tin increased vascular action, or congestion of the Brain or its membranes. The varieties and forms which inflammation of the eye presents are very diversified. The severity or acuteness of the symptoms, the rapidity of the progress of Ophthalmia may from the slightest increase of vascular injection on, to the much prolonged continuance, up to the most violent rapid states in which inflammatory action is ever manifested. Hence the conventional terms of acute, chronic, sub-acute, are to be received with due latitude as to their import. But Ophthalmia, like all other inflammations, may be modified in kind or form, as well as in grade, by peculiarities of constitution, mode of diet, the manifestations of Vital power, the state of the circulating fluids. Ophthalmia differs in degree, at different periods of its course; it is also remarkably modified by the tissue in which it is seated; by
the nature of the predisposing exciting causes, by its superintervention upon, or complication with, other morbid states, or specific forms of disease; by the age, habit of body, regimen of the patient.

Out of these circumstances arise the numerous varieties established by modern authors, to adopt to them in recent systematic works.

Treatment. — From the feeling of unnatural heat which attends most of the Ophthalmia, the application of cold water may be regarded as a remedy to which the patient is prompted by instinct. It undoubtedly relieves for a time, yet in the internal Ophthalmia it is positively injurious, while in many cases its use is followed by a degree of reaction which is detrimental.

Even in cases of inflammation of the external covering of the eye, the same good may generally be obtained from tepid applications, without the risk of any hurtful reaction. Pussy-decoction answers very well for this purpose. In cases of Serous Ophthalmia, it may be left to the option of the patient to use the lotion either tepid or cold. Cataplasm mixtures applied over the eyes though not hurtful in themselves, often prove injurious by leading to the omission of proper remedies. My brother Dr. E. Dickson of Tripoli, has therefore discarded them entirely, from his
Ophthalmic practice. Much is to be affected also in the cure of these diseases, by medical regulation. The attention to cleanliness, by the removal of waste discharge from the eye, pure air, early going to rest, quiet sleep, proper use of mind, regulated diet, proper exercise, and any similar observances, are in a high degree conducive to recovery, while neglect of one or more these rules is often the cause of prolonged severe attacks of inflammation, in different textures of the eye. Ophthalmia may be divided into Idiopathic, & Traumatic; neither of these may be General, or Partial. Idiopathic Ophthalmia is subdivided into External, when the inflammation is superficial, limited to the Conjunctiva, eyelid, & cornea, and Internal, or when it is deep-seated, affects the tissues that more properly belong to the eyeball. External Idiopathic Ophthalmia comprises three species, the Catarhatch, the Purulent, & the Serosal. Internal Idiopathic Ophthalmia, also comprises three distinct species, which for want of better names, I shall style, -- as Verteitis, or Rheumatic Ophthalmia; Puerperal, or Amniotic. The Purulent Ophthalmia of Infants, & Gonorrhoeal Ophthalmia I have included under
the head of President Ophthalmia. I believe Pustular Ophthalmia to be a variety of Serofulous Ophthalmia, these therefore not treated it as a separate affection. Ophthalmic Serofulous Ophthalmia, I have altogether omitted as more conveniently belonging to a description of the several eruptive diseases of which it constitutes a part. Although the Seroticia properly speaking is an external coat of the eye, the symptoms of its inflammation being more akin to those of inflammation of the internal coats of the eye, than to those of Conjunctivitis, I have preferred describing Seroticia among the Internal Ophthalmia.

Inflammation of the Anterior Chamber (Irenee) is so like inflammation of the Iris, in its symptoms, that I really doubt whether I could discriminate between the two; nor does the treatment differ in either case. I have therefore included it in the article Iritis. Mr. Kehoe says that as the choroid coat is completely hid from view, it is not to be wondered at, that its inflammation has hitherto scarcely attracted attention. In the early stage, "chooroeditis is one of the least striking of the Ophthalmia. When, however, the signs of deorganization which attend it, are more remarkable than those of vascular action, the while the effects are too serious not
to have attracted attention, the cause of them, the seat of the original disease, have in general escaped observation. It is occasionally attended by inflammation of the choroid plexus; and we are to adopt the common notion, that the chorioid continuation of that membrane, we might be led to conclude, that chorioiditis is chorioiditis should always go together. Regarding, therefore, the uncertainty which prevails with respect to the inflammatory affections of this membrane, as well as the Hyaloid & Retina, I have deemed it best to treat them unitedly under the name of Amauorocias.

Cataracta Phthialusia is a mild form of inflammation of the Conjunctiva, which constitutes the most common disease of the eye, to which adults are subject. It results in most cases, from vicissitudes of temperature, or from sudden variations of the atmosphere, is very apt to be excited by exposure to a draught of frost, especially during sleep. It has its analogies in indeed the same disease, with that moderate degree of inflammation, produced by the action of of the same cause, in the mucous membrane of the nasal cavities, throat, bronchi, which is commonly styled Coryza, or a Cold. The inflammation is confined to the Conjunctiva & Mucibarian follicles. Its leading
Symptoms are increased redness of the surface of the eye, some pain increasing there, an increased discharge of mucus from tear, sticking together of the eyelashes. The redness is superficial, of a bright scarlet, usually diffused in patches, some of the vascular papillae being more distended than others. When, however, the inflammation is more intense, the whole surface, except that of the cornea, becomes of a scarlet hue, the vessels of the conjunctiva edematous and form a network, that can be slipped through about over the subjacent surface by moving the eyelids with the fingers. Frequently some of the meshes of this network are filled up with little patches of extravasated Blood (Ecchymosis), and sometimes all distinction of separate vessels is lost. In the commencement of the complaint the redness is confined to the palpable conjunctiva, but afterwards advances gradually from the conjunctiva, where it is reflected over the eyeball, towards the cornea. The pain which attends Catarrhal Ophthalmia, is slight and trifling. At the outset there is some uneasiness, when the eye is exposed to the feeble light; but there is no intolerance of light when the disease is fairly developed. The patient complains rather of a sensation of stiffness and dryness; feels as though there were,
some foreign body in the eye, between the
lobe of the lid, especially when the eye is moved.
He complains of a feeling of pricking, or sourness, as
if sand had got into the eye. The increased
discharge that takes place from the eye in Catarrhal
Ophthalmia is not a discharge of tears. In the
beginning of the complaint there is sometimes a
slight degree of laceration, but this soon
ceases, the mucous secretion from the surface
of the membrane is augmented in quantity & changed
in quality. At first it is somewhat thin, but it
soon becomes thicker & it is often opaque & yellow,
though sometimes it retains more exactly the
character of mucous--is transparent & viscid.
The eye looks moist, but it feels gummy. The
serous formation secreted is not in præcise, in any great
abundance, & may be seen lying in the angle between
the eye & the lower lid, by pulling them apart; or it
makes itself visible at the corner of the eye,
or between the eyelashes along the edge of the lid,
which it fuses together at night.
There is seldom much swelling of the conjunctiva.
This being a mild disease, remedies of an active
kind, such as influence the whole economy are
scarcely ever necessary. The patient should observe
the main particulars of the antiphlogistic regimen, to avoid exposure to drafts or currents of air, and to cold moisture generally. It will be right to purge him in the outset with calomel followed by a bluish dose. If the system at large sympathizes with local disease, it may become necessary to apply leeches, but bloodletting is hardly ever requisite except the inflammation is unusually severe, or the disease has been neglected or mismanaged. The proper spot for the application of leeches is behind the ear on the mastoid process of the temporal bone.

My brother Dr. E. Dickson of Tripoli seldom, however, resorts to local bleeding in cases of catarrhal Ophthalmia, for it appears to weaken the eye for some time after, moreover popular prejudice in Tripoli is rather against these empyres. He never applies leeches on the eyelids, nor round them, for it frequently causes edematous swelling of the face, eyelids, which to say the least of it, is unpleasing and generally shocks the patient and his friends. After the bowels have been thoroughly cleared by an active purgative, warm diluent drinks, hot fomentations which encourage moderate diaphoresis will be likely to forward the case. As a local application, bathing the eye
frequently with a tepid emollient Collyrium composed of equal parts of milk and water, is generally all that is requisite. But should there be a disposition to the secretion from the eye becoming purulent, it would then be proper to change this Collyrium for one composed of 3f of a Tincture of Lead, dissolved in 16f of water; at the same time, apply a large drop of the following Solution, into the eye, twice a day:

\[ \text{AgNO}_3 \text{ Distilled water } 3f \]

Dissolve.

Recline the patient's head back, so as to bring his face upwards. Dip the lower end of a small glass tube, or of a quill, open at both ends, into this caustic solution; then closing with the forefinger the upper end of the tube, the fluid is prevented from dropping out, and may thus be conveyed, shed over the patient's eye, when by lifting up the forefinger from the closed end of the tube, the fluid will instantly drop out. This should fall into the hollow formed at the internal angle of the eye, and will be diffused over the globe upon the separation subsequent wink of the lids. If well done, the fluid
instantly acquires a milky appearance; should this however not happen, the operation must be repeated. There is another expedient to be attended to in this complaint. When the eyelids are pressed together by the viscid discharge, much hurtful irritation is often produced by the attempts which the patient makes to separate them. Not all this may be obviated by smearing their tarsal edges at bed-time with a bit of lard, or of fresh butter.

Prurulent Ophthalmia is another disease of the conjunctiva, differing from Catarchal Ophthalmia in degree, in the severity of its symptoms, in the danger which it implies to the sense of vision, and in its exciting cause. It takes its name from the profuse discharge of pus, or of altered mucous which cannot be distinguished from pus, that pours from the inflamed surface. It has also been called Egyptian, and Contagious Ophthalmia. Although prurulent ophthalmia is inflammation of the very same part that is inflamed in Catarchal Ophthalmia, and differs from it chiefly in degree, yet it is a very severe, highly infectious disease. It is quite sufficient
for a person subjected to it, to enter a room occupied by a patient suffering from Purulent Ophthalmia, to cause him to catch the disease. When children are brought to my Brother's house for Vaccination, though none of them are allowed to go up stairs, nor any of my brother's children allowed to go down stairs to them, or even permitted to see them — if several of these children are affected with Ophthalmia, it instantly communicates the infection to his own children. Whereas by keeping his children away from houses where the disease exists, & by not receiving Ophthalmia patients at his house, my brother has kept them free from the complaint, notwithstanding the predisposing influences that are acting upon them every summer, in Tripoli, their own susceptibility, marked by an irritated appearance of the eyes, by a secretion of a glutinous matter along the edges of the eyelids & by the confused aspect of the eyelashes, which instead of projecting in regular rows, appears trodden one another, seem ready to drop on the slightest touch. This appearance of the eyes is very common during the hot summer months, in all those who have suffered repeated attacks of Purulent
Ophthalmia. I believe moreover that this Ophthalmia is contagious (communicable by inoculation); it is decidedly endemic in Tripoli. It prevails mostly in summer & autumn, like the Scorpion sting, it is most virulent in August & September. It is rare in winter, & it generally ceases on the arrival of the first rains in October, which seem to wash away the complaint from the face of the country. Its exciting cause, is doubtless a specific, Contagion or Poison in the air. Its predisposing influences are, probably, the heat & glare of the atmosphere, together with the floating particles of hot dust, causing irritation of the eye during the daytime, followed by the excessive damp, heavy dew which prevail at night; the former predisposing the eyes to motility action, the latter checking the copious teary, tarry flow of perspiration, which seems to act as a safety valve to relieve the system from the excitement produced by the hot season. Many of the natives of Tripoli to relieve the torment of heat & scorching, sleep out in the open air at night during the summer months, most of them awakening morning with an attack of Ophthalmia. The sooner one gets it, the more susceptible one becomes to its influence; children are much more liable to catch
the complaint than adults. Persons of a weakly
constitution are very subject to it. My brother Mr. I. Dickson also
says that he is not aware of anyone who wore spectacles
(coloured or transparent) having caught the disease. - Presenile Ophthalmia
generally manifests itself in the morning, the complaint
appears first in one eye. To an attentive observer this looks
a little smaller than the other or round eye, some of the
filaments of the conjunctiva appear more vascular than
natural; this appearance is most visible at the corner
of the eye. The patient complains of no pain, observation
fails to be aware of the terrible disease that has seized upon him.
If left to itself, the vasculariety of the eye, rapid discharge
of the eyelids swell and become completely closed. On the third
day, the other eye becomes affected, but soon through its
course more rapidly than the first, finally becomes
also closed. Should the disease end favourably, the eye
first affected is the first also to get well.
Yet, thick, yellow matter is now copiously formed by
the conjunctiva greatly distends the tarsal fold, eyelid
while streams of it are continually escaping over the
cheeks,渗透ates the skin wherever they touch.
The quantity of matter sometimes amounts to several
fluid ounces per day, effusion also takes place
in the cellular tissue that connects the sclerite
and conjunctiva, causing it to project around the cornea, in the shape of a large thick ring, leaving the cornea buried as if it were in a pit (chemosis). The pain is more or less acute, the patient feels as if his eyes were filled with sand. His suffering, however, except in young children who seem to feel very much, especially the nocturnal paroxysms are not severe. When great, are owing I believe, to a complication with Rheumatic Ophthalmia. The roseolar diathesis, moreover, considerably modifies this disease, prolonging the patient's suffering, tending to his eyes more liable to permanent injury—especially to ulcers, ulcers of the cornea. Rapid emaciation, particularly of the face, is a common effect in these suffering from Purulent Ophthalmia; yet notwithstanding all this suffering, there is seldom much insubstance of light. — Gonorrhoeal Ophthalmia, and the Purulent Ophthalmia of Infants are more varieties of Purulent Ophthalmia, characterized by similar symptoms, relieved by the same treatment, therefore requiring no special notice here. — Fortunately, we possess a remedy that can easily cure this disease, and my Brother Dr. Dickson of Tripoli, confidently affirms,
Law in abundance, harm in harm.
that if called in at the commencement of the disease, every case (with the exception of children, who are often unmanageable) would cure favourably. This remedy is a solution of Nitrate of Silver in Distilled water. As a general rule, gr. VIII of the salt, to 31 (fluid) of water is the formula most approved of by my Father the late Dr. John Dickson, and as well as by Brother Dr. C. Dickson, but if the eye be very matter, not over painful, gr. X of the salt to the fluid 31 of water, is a far better proportion. My brother has tried also Mr. Guthrie’s Ointment composed of gr. X of Nitrate of Silver ground to an impalpable powder mixed with 31 of Hog’s fat, but he prefers the solution. Before applying it to the diseased eye, the discharge must be well cleansed away by a solution composed of 31 of Alum dissolved in a pint of water, then the ointment having been inserted beneath the lids, they are to be forcibly moved up and down, so that the whole conjunctiva may get its due share of the remedy. I'm using the caustic solution, the eye need not be washed out; a little (sufficient to fill the eye) of the caustic
solution should be dropped into the eye twice or twice a day, as directed in cases of Catarhal Ophthalmia. Any burning or smarting sensation, it may cause, will subside in a few minutes, by bathing the eye with fresh water. As an auxiliary measure, much good will be derived, from a light compress saturated with gaudard water; constantly applied wet to the eye.

General Bleeding need hardly ever be used, but blebex a peroxide behind the ear, will do good, particularly if there be Chemosis. Practical men are not agreed about the propriety of sacrificing the conjunctivæ when it is swollen relatively by Chemosis. My brother has never tried it in their cases, but I see no objection of its being done, for no doubt it would relieve the mechanical pressure, exerted round the cornea, by evacuating the serous effusion from the cellular tissue between the conjunctivæ and the scleræ. A most important part of the treatment of Pusulent Ophthalmia, particularly during the activity of the complaint, consists in the administration of the cathartics. My brother generally gives a full dose of calomel, followed by a saline purgative, or infusion of Sena, &c.
the dose whenever the bowels become topid.
A lubricative drink may at the same time be
prescribed and the patient must be kept on
rigid diet, perfectly quiet, and away from all
drafts of air. The room need not be quite
dark, but simply shaded from the sun's
flare.
In the decline of the disease, and
when the complaint appears to be station-
ary, a blister applied on the back of
the neck, or behind the ear will invariably
effect a cure. Often after an attack
of Paralytic Ophthalmia, a remarkable vacu-
elicity of the Conjunctiva remains for sometime,
this would probably subside gradually of itself,
if left alone. By rubbing, however, every night
morning, gist of Mercury Pimentum on the
temple, this vacuularity will entirely disappear
in two or three days. In young children,
it is sometimes difficult to open their
eyes without using violence, on account of their
unsteadiness. In such cases the child should
be placed on its back, upon an assistant's
lap, who is to hold it down, at the same
time that he keeps its head steady. You
then power rapidly, a good quantity of the caustic solution over each closed eye, before the child has time to recover itself, you separate the eyelids with the fingers of both hands, one applied to the upper & the other to the lower lid, 
they cause the fluid to wash over the eye ball.
The cure is seldom completed in those young patients, without first applying a blister behind the eye, on the decline of the complaint.
It would not be out of the way to mention that Blisters are never to be applied to Infants, young children, without covering the blister with a piece of Silver paper. If this precaution be not taken severe coughing may come on, from the violent irritation occasioned by it on their tender skin. — In other respects the treatment is similar to that of Adults, only the caustic solution need not be stronger than 1/8 of the salt to 3/4 of water. The most appropriate purgative for these little Patients is Calomel alone, or equal parts of Calomel & Tannery. Persistant Ophthalmia of Infants is probably much the most fertile source of Blindness, with which we are acquainted. It is believed to originate most commonly,
if not always, in Contagion; it is a matter of fact, that in a very large number of cases, the mother has been affected at the time of her confinement, with some kind of vaginal discharge, such as Lacerorrhoea or Gonorrhoea; or with Purulent Ophthalmia. The striking difference exists between the disease in adults, in newly born Infants, viz: its rapid, almost uncontrollable progress in the former; the facility with which it yields to suitable and timely treatment in the latter. If you are able to separate the child's eyelids sufficiently to obtain a glimpse of the cornea, & perceive that it is brilliant and unyielded, you may confidently assert that the child's eye is safe. If the Cornea has lost its transparency, recovery is still within reach, but the chance are against it. If you cannot get a sight of the Cornea, at all, the prognosis is doubtful, may even unfavourable. In the worse forms, & stages of this complaint, if the lids be very much swollen, & externally depressed, especially if you are unable to obtain any satisfactory view of the Cornea, without using a degree of violence that would be & lustful, it will be right to apply one leech upon the
centre of the temple. A piece of the child's bowels should be emptied by a little castor oil, or calomel, or
Calomel and Scammony, a lotion made by dissolving 50/117 of Acetate of Lead in 31 of water, may be
applied to the inflamed eye. In mild cases, in all such in which we can see the unopened
conium streaming through the tear that bathes it, it will be quite sufficient to keep the infant's
bowels open with magnesia; to apply a little
last, along the edge of the lids, that they may
not stick together; to inject carefully into
the eye, beneath the edge of the lid, a solution
of Alum, in the ratio of 30 IV to 31 of water.
In Tripoli, the natives are in the habit
of treating all cases of Ophthalmia with the
actual cautery. They light a thin bit of wood
generally the stick of a lucifer-match, while the
ember is still alive, they make a great many
small burns, or scabs all over the two eyelids.
This treatment appears to have a negative
effect on the disease, when applied to cases
of Purulent Ophthalmia; that is to say, it
probably does no harm. But woe to the unfortunate
person who applies it in a case of Rheumatic
Ophthalmia—certain blindness is the result.
My Brother has seen hundreds of such cases, in a Therapeutic sense, he considers this mode of Cauterization as a useless torment. There is no remedy with which he is acquainted, equal to the Cauterization solution; if used properly, applied in time, it will cure every case of Purulent Ophthalmia. When applied on the first appearance of the disease, it invariably checks it, often one application of the remedy in this stage of the complaint, will be sufficient to effect a cure. A little later, while yet the disease is limited to one eye, the application of the Cauterization solution, not only arrests the complaint in that eye, but prevents also its manifestation in the other eye, although no Cauterization solution has been applied to it.

Instead of the Cauterization solution, he has sometimes used a Solution composed of 985 parts of Sulphate of Lime to every 50 parts of water. It gives more pain than the Cauterization solution, more time to effect a cure.

Trichiasis is a very frequent result of Purulent Ophthalmia. The usual treatment adopted in Europe, is to slice off with a pair of scissors, a strip of 48 or fold of the lower skin of the eyelid. The natives of Tripoli treat this
Affect of palpbral convergence
with sufficient considered in connection to
parallel 9th - concurrent & consequent
complain much more closely and effectively. They take two small bits of cane, having firmly tied them together at one end, they separate the other two ends, holding these apart, place between them a horizontal fold of the loose skin of eyelid, sufficient to raise the edge of the tarsal seam to free the upper eyelashes from rubbing against the cornea. This being done, they tie this end also of the stick firmly together, let them remain until it dries. The advantage of this plan of treatment are, that you can measure the exact quantity of fold of skin that you wish to remove, if that there is no subsequent separation of the edges of the flap of the wound, if that this do not unite by first intention, but causes a new puckering of the skin consequently draws up the edge of the eyelid more effectively. The pain of the operation is trifling not greater than what would have been caused by the knife in vesicular Ophthalmia in another affection of the conjunctiva. It has received several names, that been called Pustular, Phlyctenular, Reumourv Ophthalmia. It is a form of Ophthalmia that differs in many striking points from those I have been considering.
It is intimately connected with the scrofulous constitution; it is a disorder principally affecting childhood. It is not a disease of infants at the breast, but is most prevalent from the time of weaning to about the age of eight years. The leading symptoms of this disease are: slight sneezing; great intolerance of light; the formation of little prominences or pustules on the surface of the conjunctiva; vesicles which are the result of these. The complaint sometimes occurs in one eye alone, often in both; but then one eye is generally worse than the other. Cataract, chorioiditis, and scrofulous conjunctivitis are apt to degenerate into this affection in scrofulous children. It is extremely tedious in its course; often baffles all our skill, terrorizing the patient, when one thinks that he has overcome the disease, will either leave a speck on the cornea, or it will merely disappear to excite scrofulous action in some other part of the body.

The scrofulous has this peculiarity, that it is slight and partial. Sometimes it is altogether confined to that part of the membrane which lines the eyelids; generally one or more papules of superficial vessels are seen.
proceeding from some point of the circumference—
more commonly from the angles of the eye—
towards the cornea. These scattered bundles
of vessels (sometimes there is but one) stop when
they reach the cornea, or occasionally encroach
a little upon it; where they stop one or more
small elevations of the membrane may be
observed, which are called pterygia, or "fleets".
Sometimes, however, you may see one or two near the
centre of the cornea. — They are smaller
in size, when they appear on the cornea, than when
situated near its edge. These pterygia may
be absorbed, leave behind them a temporary white
spot; more frequently they break through little
bleeds. When these bleeds are beyond the cornea,
they are of less consequence, than when situated
upon it; for then they become sources of danger
in two ways; they may penetrate the cornea, let
out the aqueous humour, cause hernia of the
iris; or they may lead, after healing, a permanent
white opaque speck, called leukoma, which
according to its size, situation, will interfere
more or less with the patient's vision. —
The intolerance of light is a very prominent
symptom of this disease; sometimes it is the
only symptom that manifests itself. This inability to endure bright light bears no regular, or definite proportion to the intensity of the other symptoms. The eye is not painful when protected from the light, but the ascent of the ordinary light of day occasions extreme suffering; the eyelids being spasmodically closed, the orbicular muscle in such a state apparently involuntarily action, as effectually to resist all attempts to open them. Children that were are affected with Profuseous Ophthalmia, carry it visibly impressed on their physiognomy. The child's brow is knotted contracted, while his head and his upper lip are drawn upwards; these muscles of the face which tend to exclude the light, are instinctively put into action, producing a peculiar distinctive grin. In severe cases, the child will shirk all day in dark corners; or if in bed, will lie upon his face, or under the clothes; while the light is thus kept off, he does not appear to suffer. If brought towards a window, he holds his head down, and pressers his hands or arms over his eyes. When you attempt to open his eye to examine it, a profuse discharge of teady tears takes place.
these prey partly into the nose, desire fits of sneezing, partly over the skin, which they sometimes inflame, vericrete. You might suppose from this extreme intolerance of light, that the retina was inflamed, or in danger. But it is not so. The affection of the retina is partly purely sympathetic, need not of itself excite any fear about vision. Towards dusk indeed, the child can generally open his eyes, yie then quite as well able to see as if he were well.

When little or no remedy exists, this extreme intolerance of light has been called Photophobia Vesofulosa. With this extreme affection of the eye there are usually present other evidences also of Vesofulose disease. Swelling of the alar - nae - upper lip; enlargement of the abscroted glands about the neck; scutains upon the head; rose ear; a large third belly; disorder bowels; offensive breath; printing of the teeth; general debility. And the Ophthalminia will alternate sometimes in severity, with some of these other local Vesofulous complaints; getting better as it worsens, vice versa. The most frequent terminations of Vesofulous Ophthalmia are, Chronic Coicientis; Hernia of the Pariu; Albu
in Taphyroma. Eyes which have suffered long with
Virofulous Inflammation, are never so good afterwards,
yet are apt to become amaurotic if they are much
fatigued. More good is to be done by general
treatment, applied to the system at large,
in this form of Ophthalmia, than in those
we were occupied with before; this is a strong
point of difference between them. In the first
place we must endeavour to correct that unnatural
condition of the whole system, especially of the
digestive organs, which is commonly to striking
a concomitant of the local disease. It will be
proper to clear out the bowels in the outset,
occasionally by a mercurial purge; to regulate
them at other times by laxatives, such as Rheubarb
Bicarbonate of Soda, Confection Candy, or Calomel.
The recovery will be greatly accelerated also by
those measures which are found to benefit the
general health in such constitutions; a dry
habitation, warm clothing, frequent ablution
of the body, nourishing though plain food, the
respiration of a pure atmosphere, change of air,
regular exercise. In addition to these measures,
tonic Medicine should be administered; the
best remedy of this kind, is unquestionably the
Sulphate of quinine. This may be given to a child in grain doses, three times a day, dissolved in water, with a drop of the dilute Sulphuric Acid, some Syrup of Orange Peel. Dr. Mackenzie says, one of the most powerful and successful methods of treating Phytemoror Ophthalmia is by means of Tartar Emetic; either in such doses as to produce vomiting, in smaller quantities frequently repeated, or to excite nausea, or combined with a purgative. There is perhaps no remedy which possesses equal power as a sedative in this disease. Four grains of Tartar Emetic being dissolved in six ounces of water, a tablespoonful is given every five minutes, till free vomiting is produced. In those cases where there is considerable irritation of the skin, Dr. Mackenzie recommends a course of nausea, or of emetic cathartics. For instance, he gives to an adult patient the following mixture. By Tartar Emetic, gr. i – iv

Sulphate of Magnesia, zi – ii
Water — hi Disolve.

Two or three tablespoonfuls of this mixture, to be taken every half hour till vomiting
is excited, after which the dose is to be repeated at intervals of three, four, or six hours, according to the case, and the circumstances of the patient. In chronic cases, the nauseating should be exhibited at more intervals, in the form of pills, each pill containing from 1/4 to 1/2 grain of the trocar. In children, from the twelfth to sixtieth of a grain, rubbed up with a little sugar, may be given, according to the age of the patient; three a day, the observer, that where there is much febrile excitement, this plan will often prove effectual, while perspiration or tonics would produce little or no good.

Local depletion is seldom requisite, except when there is much renause, pain, the tongue becomes white, the skin hot. You must not take the intolerance of light as a fit indication for the use of leeches; abstraction of blood rather aggravates that symptom, apparently by increasing the irritability of the retina. Warm fomentations are generally very comfortable to the patient's feelings. And I am acquainted with no remedy equal in this respect to a decoction of elder flowers. Much relief is also experienced.
by washing the eye to the steam of warm water, or to the vapour of camphor, aided by means of a cupful of hot water. When the general disorder of the system has been somewhat rectified, local stimulants, trocric agents are of great service. The Vinum Opii, a mild solution of Lucas Curtius, are the best. They are generally tedious cases, a great objection to the employment of the Nitrates of Silver wash is that if repeated frequently for a long time together, it is apt to stain the conjunctiva of an insensible Olive colour. For this reason the Vinum Opii is to preferred in slow cases, in those whose frequent relapses happen. The good effects of either of these preparations are very striking, they diminish the irritability of the eye, promote the healing of the ulcers. A drop of Vinum Opii applied into the eye, twice a day will be quite sufficient. If the Nitrates of Silver solution be used, its strength ought not be more than from 3 to 5 grains of the salt to every fluid ounce of Distilled Water. Counter-irritation is another local measure, which is of undoubtedly utility in this complaint. A great charge
for the better in the state of the organ often occurs, almost suddenly, upon the rising of a blister, placed behind the ear, or at the back of the neck; if these on the corn are not only desirable in promoting the cure, but have a marked effect in many children, preventing relapses. Should any ulcer appear on the cornea (they look like little round flat shinny spots, as if a bit of the cornea had been sliced off) — they must be lightly touched for several successive days, with a pencil of luna cautery, not to exceed a five point. — When an ulcer threatens to penetrate deep into the substance of the cornea, or when it has already perforated it; — it is proper to touch the ulcer, or if there be prolapse of the iris, the myoepithelium (Ierna of the iris) every second or third day, with a pencil of luna cautery. In cases where the ulcer of the cornea is central, even when the edge of the pupil is involved in such an ulcer, the extract of belladonna applied in a case of 9 sit., may prove sufficient to free it, & thus to preserve the pupil entire. Belladonna, 4 hypocras, employed in fomentation, vapours, or friction, or given
internally, are found useful in relieving the intense pain of light attendant on Secularous Conjunctivitis & Conjunctivitis. The best mode of applying Belladonna, is to expose the eyes to its searious solution, raised into vapour, by means of a cupful of boiling water.

The flow of hot, acid tears in Secularous Ophthalmia, frequently cause papules to arise, that produce a discharge that crusts over the cheek, extends to the forehead and temple. This is called Crusta Lacteae, is very characteristic of the Secularous habit; it occasionally spreads over the entire body. When the more urgent symptoms have abated, the discharge of hot irritating tears has ceased, the Crusta Lactea may very easily begot rid of. The crusts are to be removed by a light poultice, orby Peromum Jaloe, or even by plain warm water; then the part must be bathed from time to time, with a lotion composed of 31 of Oxide of Zine, mixed with 51 of Rose water. Secularous Ophthalmia is very apt to degenerate into a Typhous affection, of the eyelids called Typhous Ophthalmia, or inflammation of the eyelids, it is very
common complaint in Tripoli. Sea-bathing every year, particularly during the Spring, is the only remedy I can suggest for it. When performed regularly, for several successive seasons, the morbid habit is corrected, if the patient be young, the disease will ultimately disappear. All the other medicines usually prescribed, such as Ointment made with Red precipitate, or with Nitrate of Silver, Mercury, are mere palliatives. — The Cornea is liable to suffer more or less, in most of the Ophthalmia already considered. Its superficial layer is apt to become vascular and bulbar; it is the seat of Phlegmata, it is often extensively destroyed by ulceration. But the inflammation of the cornea, to which I will now allude, is specifically different from every other Ophthalmia; it occurs only in Acutefulous Subjects. Its development and progress are slow, occupying weeks, months, or years. The conjunctival tissues of the cornea and the substance immediately beneath that layer are the parts which chiefly appear to be affected in this disease, which however, may extend to all the tissues of the cornea. —
involve the deeper seated textures of the eye. The redness is principally in the sclerotic, on the surface of the cornea. The sclerotic redness is in general inconsiderable, of a pink colour, the vessels are very small minute, arranged in the form of radii round the cornea. Sometimes, there is a reddish ring formed round the margin of the cornea, while vessels more or less numerous are traceable over its surface, occupying converging to its centre. In some cases the whole cornea is so completely covered with a net-work of blood-vessels, that it assumes a red patchy vascular appearance, which has been called named Scleritis from its supposed similarity to a piece of red cloth. The cornea is more or less opaque though, its conjunctival covering thickened, in texture; its surface has lost its natural polish, is bazy resembling frosted glass, vision has become indistinct. In some instances, the opacity amounts to a faint haziness only; while in others, it consists in a streaked or speckled whitening. The cornea often becomes more prominent than in its natural state, and resembles incipient Staphyloma. There is not in general, any great intolerance of light; in this disease, corneal corneitis presenting in this respect, a striking contrast.
Sorefulous conjunctivitis. This symptom, however, is variable; for in some cases especially in those attended with Panner, the patient cannot bear the light, there is considerable epiphora or lacrimation. In general there is little or no pain, except perhaps in the commencement of the complaint. It sometimes happens however, that very acute paroxysms of pain are experienced in the eye ball; this may be the case without any inflammation of the Iris being present. After a time, the eye falls into a Chronic, constant state of Inflammation, unattended by pain, this particularly after the Cornea has become opaque—The Subjects of Sorefulous condictitis are in general from 8 to 18 years of age; often manifest other symptoms of ill-health, such as coarse flabby skin; a pale bloated face; hoarse voice; enlarged lymphatic glands; nodes on the tibia; amenorrhea, & deafness. The treatment of Sorefulous Conrectitis is tedious, uncertain, but differs in no respect from that already laid down for the cure of Sorefulous complaint. Mr. Mackenzie highly extols a combination of Tinctura Emetic Sulphate of Quinine, says that he has
derived more benefit from these two medicines given together than from either of them given singly. A frequent consequence of repeated attacks of Ophthalmitis is that thickened, fleshy, rough state of the lining membrane of the eyelids, especially of the upper lid, which is known by the name of granular conjunctiva. This is a troublesome complaint; by rubbing against the cornea, the granular lids keep it in a state of constant irritation, so that it becomes vascular and gelatinous, if the case be neglected, great thickening with roughness total opacity may be the result. The conjunctiva in the granular state secretes an inordinate quantity of mucus which on any additional irritation of the system, is apt to become puriform. The cornea assumes somewhat of a greenish hue; it is covered with prolongations of the blood vessels emerging from its circumference towards its centre.

In chronic cases of granular conjunctiva, the constitution becomes affected, the patient suffering from hectic fever, is pale and emaciated. The treatment that has been found most successful consists in resection of the conjunctiva, the application of
exclamations, counter irritation; of the use of tones.

The eyelids being erected, if the conjunctiva be very vascular to be removed, and granular prominence is to be divided by a small corneal incision, made with a lancet, the point of which is rounded off. Next day or later, if necessary, the lids being again erected, dried from any fluid mucous they may contain, a pencil of luna salt is to be rapidly passed over the fleshly prominences we wish to remove, before allowing the lids to be replaced, a little warm water may be requested over their surface. The scarification the cautery are to be employed alternately at intervals of two or three days; it is advantageous after a time to change the luna salt to the Sulphate of Copper which may be more liberally applied. During the employment of these remedies, a blister is to be kept open on the nape of the neck. The cure will be greatly promoted by regulating the diet of the patient, by the use of tonics, especially of the Sulphate of quinine; by attending generally to those hygienic measures already prescribed in the treatment of Morbidous Ophthalmia.
Rheumatic Ophthalmia, is inflammation of the Sclerotic or fibrous coat of the eye, extending frequently to the Iris. The fibrous tissues throughout the body are often the seat of rheumatic inflammation; some persons are more liable to it than others—some are more readily affected by its exciting causes, which are variations of external temperature, exposure to cold and wet. The local symptoms are not in general of a violent kind; in some other parts, the rheumatism seldom leads to any permanent alteration of structure, when the inflammation is confined to the Sclerotic alone. When the inflammation escapes inwards to the Iris also, we name the disease according to the most important part that it occupies—Arthritic Pitting. On the other hand, when this affection of the Sclerotic is combined with a moderate degree of inflammation of the Conjunctiva, this complex disorder assumes the name of Cataracto—Rheumatic Ophthalmia. This inflammation of the eye, resembles rheumatism in its most exciting causes, its accompanying pain, its exacerbation and ease.

Rheumatic Ophthalmia is comparatively
a rare disease, we seldom see both eyes affected with it at once. In Tripoli Rheumatic Ophthalmia, in always more or less connected with Catarrhal Ophthalmia; they are sometimes both blended together, and occasionally one margin was it were into the other.

Rheumatic Ophthalmia, is, however, a far more severe complaint, frequently terminates in the destruction of the eye.

The distinctive symptoms of Rheumatic Ophthalmia are these: the ectropion is seen through the conjunctiva; it is quit a different tint from that of the conjunctiva itself; instead of showing a bright red or colur, it is pink, or sometimes of a slight violet hue; the vessels are much smaller, finer than those belonging to the conjunctiva, are in fact like hairs, and they are not tortuous, but straight arranged regularly, after the manner of radii in a circle; they lie in the ectropion round the cornea like what is called by painters a glory, or like a halo or zone surrounding the central cornea; they cannot be made to shift their place
by any dragging of the lids.

The pain is much more severe in this disease, than in affections of the conjunctiva; it is of a dull aching character, with a sense of tightness, also frequently attended by throbbing and it is also felt in the surrounding parts more severely perhaps than in the eye itself in the brow, temples, head. It is a very remarkable circumstance too, that the pain is distinctly aggravated towards night, increasing in violence from dusk till midnight, abating towards morning, ceasing in great measure during the day, to be again renewed in the evening. Occasionally, it is confined to one half of the head, resembles Hemiepistaxis.

Dimness of vision, uniformly attends this Ophthalmia, depending on an accompanying haziness of the Cornea & pupil, attended by a slight contraction of the latter, sluggishness in the movements of the Iris. Indeed, this membrane is generally affected sooner or later in all cases of Rheumatic Ophthalmia, the attendant Irritities may soon to evident effusion of coagulable lymph within the pupil.
The attack of light does not in general prove very distressing to the patient. The affected eye feels dry; but in the early period of the disease, but after a time, especially when the symptoms are somewhat abated by blood-letting, there is a considerable desquamation. A considerable degree of symptomatic fever attends this disease, increasing along with the Nocturnal paroxysms of pain. The pulse becomes frequent, sometimes strong, full, thready. The tongue is white, roughened, the mouth ill flavoured; there is more or less nausea, the skin is hot and dry. The digestive organs are deranged, the appetite impaired, the bowels generally confined, the expectoration mucoid. The morbid severity of the disease vary much in different cases; in some persons the attack is slight, soon goes off without permanently injuring the organ; in others it is extremely severe, if misunderstandings, may soon destroy vision. In Tripoli, this complaint prevails in winter & spring, and is a chief source of blindness to the natives. It
is never seen in children, or in those far advanced in life.

The treatment of Rheumatic Ophthalmia, must be active, decidedly antiphlogistic.

If there be much fever, in the sympathetic derangement of the general system, blood-letting from the arm, will be of great service; in other cases, it will be sufficient to make use of repeated applications of leeches or cupping behind the ear, until the inflamed blood vessels of the eye become pale, the pain in the head feels relieved.

A snuff preservative (I prefer Infusum Vomica to all other cathartics), preceded by a full dose of calomel, ought to be administered at the commencement of the treatment. Afterwards, laxative lozenges may be given every morning to relieve subsequent constipation. Should the patient not be greatly better after the operation of the cathartic, a pill composed of 2 grains of calomel, with half a grain of opium, must be given every night and morning, until the gums begin to be affected, when it may be omitted.
and substituted by q. t. of Dover powder.
This with warm pelisurium at bed time, with
diluent drinks, will generally ensure a favourable
diaforetic. Colored opium may be regarded almost
as a specific in the Rheumatic Ophthalmia, and
alleviates the severe pain felt in these cases.
Strict diet, repose in a dark room, ought also
to be enforced. A local application great benefit
will be derived from bathing frequently the eye
with the following tepid colligium.

By

\[ \text{Extract Opii aquae qvi. \( \times \) \( \text{II} \)} \]
\[ \text{Aqua tepida} \text{ qvi. \( \text{III} \) Solv.} \]

Opiate frictions, on the forehead, temples have
been strongly recommended, but my Brother has
found much greater relief afforded by rubbing
on each temple, every night and morning, qvi. \( \times \) of
Strong Mercuorial Ointment mixed with a little
Extract of Deyzogamus. The quantity of extract
ought barely to be sufficient to conceal the
gray colour of the mercuorial Ointment. During
the whole course of Rheumatic Ophthalmia, it
will be proper to keep the pupil of the affected
eye under the influence of Belladonna, either
by smearing the moistened extract upon the
eyebrow:salary every evening at bedtime, or by infusing 31 of the Extract in every ounce of Lavandula, which is used for rubbing the head.

On the decline of the complaint, should its progress appear slow, or the disease seem stationary, a good large blister on the nape of the neck, will invariably effect a cure. Never apply to blisters during the early stage of the complaint, for they would greatly aggravate the patient's sufferings, ultimately cause Blindness; my Brothers Dr. Gilbert's experience leads him to condemn that application in this disease, when placed anywhere on the head, or in the vicinity of the eyes. The only two admissible places are, the nape; behind the ears; when beeches are not applied there.

Small doses of Sulphate of Quinine, or of the mineral acids will be found advantageous in the chronic stage of the disease, during convalescence.

Puritis or Inflammation of the Iris like Ophthalmitis in general, is either Idiopathic, or Traumatic. It is apt to occur from different causes, in connection with different diseases, stages of the System. It is an uncommon accident from Surgical operations performed upon the eye, the Iris suffering mechanical injury.
The inflammation thus excited is usually violent, requires active treatment. But sometimes
Iritis arises slowly insidiously without vascularity
equal to call attention to the eye without
pain. This generally happens when the eye
has been strained by overuse; in women who
occupy themselves with fine needle work; in
engravers, those who are accustomed to look at
minute upright objects. A more common effect
of continued exertion of the eyes in this way
is a diseased state of the Retina; but the
Iris is sometimes the part that suffers.
But most frequently Iritis is met with in
combination with Syphilis, or with Rheumatic
disease. Syphilitic Iritis is more common than
any other.
All the changes which occur
in Iritis depend upon the circumstances that
the inflammation, like that of the serous
membranes generally, is of the adhesive kind;
that is, is attended with the effusion of coagulated
lymph. By means of this lymph the form
the colour of the part are changed; the size
of the pupil undergo alteration; or that
aperture is completely closed up; the motions of the
Iris are limited or entirely stopped.
The symptoms which characterize Irises were unknown until the commencement of the present century. They are the following:—removal of the sclerotica; a change in the colour of the Iris itself, in its general appearance; irregularity of the pupil, produced by adhesion of the Iris to the neighbouring parts; immobility of the pupil sometimes, from such adhesion; a visible deposition of suppurable lymph; impaired sight, pain in the eye, round it. The result is such as results from vascularity of the sclerotica. The Cornea is surrounded by a zone of fine straight converging pink lines, very different in appearance from the tortuous, anæstomosing, scarlet blood-vessels of the inflamed conjunctiva. These hair-like converging lines stop abruptly at the edge, or just before they reach the edge of the Cornea; they dip through the sclerotica in fact, to go to the Iris. The vascular zone, therefore is well defined in front, while it becomes fainter from before backwards, is gradually shaded off; the posterior portion of the sclerotic being generally pale. As the disease advances, in violent cases, the more superficial conjunctival vessels also sometimes enlange, mingle their tints of redness with that of the sclerotica, more
or left confuse or conceal it. Now this pink zone or halo continues as long as the inflammation of the Iris continues, thenceforward when that ceases. It is therefore an important symptom. The change in the colour of the Iris itself is also a remarkable circumstance. When lymph begins to be diffused into the texture of this coloured part, it deepens at the same time alter, its tint; a grey or blue eye is then rendered yellowish, or greenish; a grey or blue eye is thus dark, eye presents a reddish tinge. The change is such as would be produced by a mixture of the colour of the lymph with that which is natural to the Iris. But beside a variation of colour, the peculiar brilliancy of the surface is spoiled; it becomes dull and tarnished as it were, the fibrous arrangement, which is usually so evident, is confused or gone. The change commences at the inner or pupillary margin of the cornea, extends gradually towards the outer or ciliary edge. This symptom may be rendered certain and unequivocal by comparing the sovereign with that which is inflamed. This change of colour, is occasionally by an effusion of lymph, leads to various other changes, not less striking, more important in so far as the functions of the organ are concerned.
The lymph becomes visible upon the surface of the iris. Sometimes it presents the appearance of little spots like freckles, or specks of rust; or a thin stratum of the same colours. Sometimes it exhibits the appearance of droops, enveloping the surface, protruding from its pupillary edge. These are commonly of a yellowish or reddish-brown colour; they vary in magnitude from the size of a small pin's head, to that of a large shot. These are seldom more than two or three of these masses. The lymph thus effused is almost always confined to that part of the iris which is nearest to the pupil, whilst its ciliary portion is dull and colourless. When the inflammation is very violent, or the disease has been neglected, actual suppuration takes place and presents the appearance that has been called phlyctenula. All these changes become perceptible near the margin of the iris; its free edge, which in the natural state is clear and sharp, becomes rounded and not at the same time the pupil often begins to lose its jet-black colour. Another very common consequence of the effusion of lymph, is adhesion of the iris to the capsule of the crystalline lens; the pupil itself is apt to be blocked up with lymph. The motions of the iris...
are seriously impeded by the mere effusion of lymph into its texture; at first, it moves sluggishly under variations of the light; gradually the pupil contracts, becomes fixed, motionless. When the Iris adheres at one or more points of the margin, it remains free elsewhere, the pupil is deformed, becomes saccular, this deformity is most marked when the eye is examined in a weak light, which allows the pupil to dilate, excepting at the points where the Iris is tied down to the lens, or in a very strong light, which forces the free portion of its margin, those only, to approach the centre. Still more palpable does the alteration of its figure become, when the pupil is artificially dilated. —

Vision is always impaired in this complaint; the cornea becomes hazy and dull, loses its bright polish, it looks like a piece of glass that has been breathed upon.

Acute. This is attended with pain, intolerance of light. There is pain in the eyeball itself; in the parts about the eye, the brow, temple, most severe at night. Sometimes, however, even when the quantity of mischief is very great, scarcely any pain at all, has been experienced. The same remark applies to the constitutional
symptoms. In some instances these are but slightly pronounced, but in most cases, particularly in acuteritis there is a good deal of fever and headache; the pulse is full, hard, the tongue white, sleep is broken. If the progress of the inflammation be not checked, it extends itself beyond its original seat. It spreads from the pupillary margin to the ciliary, thence it passes on to the choroid coat, to the retina. As this takes place, the pain and the pyrexia increase, blindness is usually the result.

When the disease is limited to the iris alone, it is always manageable under well-directed medical measures. We profess three powerful weapons whereby to combat iritis; Bloodletting, Mercury, and Belladonna.

With respect to Bloodletting, the intensity of the local symptoms, especially of the pain, the degree in which the general symptoms, the fever, the hardness of pulse are present, offer the best measure, both of the necessity for bleeding, of the amount to which it ought to be carried. Both will also depend somewhat upon the strength, reconstitution of the patient. Bleeding from the arm till some
decided impression is made upon the circulation, cupping from the temples; or both these modes of depletion, together or in succession, will often be required. At the same time, active purgatives should be exhibited; the whole of the apoplegic tie regimen strictly enforced. Bleeding is productive of great benefit by abating the force of the circulation, by checking the progress of the local inflammation, by preparing the system to submit itself more readily and rapidly than it otherwise would, to the specific influence of Mercury.

Mercury is our sheet-anchor in this disease. After free bloodletting, then we must administer mercury in such a manner, as to affect the gums as speedily as possible; the soreness of the gums, the peculiar fetor of the breath, being the tokens that the whole capillary system feels the specific influence of the remedy.

Two grains of Calomel, with one fourth of a grain of Opium, may be given every four hours. Some persons prefer giving Calomel still more frequently; one grain, with one tenth of a grain of Opium, every hour. If the gums do not rise in the course of
36 or 48 hours, the speedy effect is desirable, inunction of the mercurial ointment should be added. The instant the gums become affected, a welcome change becomes visible. The pink zone surrounding the cornea begins to fade; the drops of lymph to reform; the Iris to resume its proper tint; the peculiar irregular pupil, once more, to approach to the perfect circle; till at length, the eye is restored to its original integrity and usefulness. There is one local use of Mercury which is productive of great comfort, relief to the patient's sufferings in those cases in which severe pain is felt round over the orbit of the eye at night. Ten grains of strong mercurial ointment, intimately mixed with two grains of finely powdered opium well rubbed into the temple a little while before the nocturnal pain is expected, will in many cases completely prevent it. With the Mercury, both before and while its specific influence is manifested, we combine the use of Belladonna. Now it is of great importance in Prity to prevent that tendency to contraction which the pupil manifests.

By artificially dilating the pupil, we prevent
the Pois from forming adhesions with the capsule of the crystalline lens; if such have been recently contracted, we may yet stretch or break them, while the lymph is still soft. This property of dilating the pupil, is also possessed by Hydro-Atmonium, Cherry Laurel, Belladonna, in used in two ways. The extract is rendered soft and semisolid by admixture with distilled water, then it is smeared freely round the eye, upon the lids, brow, forehead. After remaining an hour, it generally produces a masked effect upon the pupil; it should then be washed off. This operation must be repeated once every day.

A more efficacious and speedy mode of dilating the pupil, is to drop a solution of the extract into the eye itself. The solution is made by rubbing down a couple of the extract in an ounce of distilled water, filtering the fluid through linen. Two or three drops of this solution are to be introduced between the eyelids. Of late Dr. Reinger has proposed applying, for this purpose, the active principle of Belladonna & Hyoscynamus; he dissolves a grain of Hyoscynamine in a drachm of distilled water, inserts a drop of this fluid into the
eye. The consequent dilatation of the pupil is very great, lasts for several days, and without exciting any irritation whatever of any part of the eye. If severe inflammation is already present in the Iris, this remedy has little effect; but if the attack is incipient, or if it be already yielding to the influence of Belladonna. Bloodletting and mercury, the pupil is speedily expanded.

Syphilitic Iritis is more common than any other variety of Iritis. It is one of the early secondary symptoms of Syphilis; it is commonly associated with other forms of secondary symptoms; with eruptions, nodos, pains in the limbs, and ulceration of the throat. We cannot distinguish Syphilitic Iritis with any certainty from other acute varieties of the same complaint by mere inspection of the eye. However, there are some points worth remembering in respect to the local phenomena which it most commonly presents.

Syphilitic Iritis is never attended with abscess of the iris, and hypopyon; the lymph is usually deposited in distinct masses; the pupil becomes irregular, and generally displaced towards the root of the nose.
The pain is chiefly felt at night, its periodical, very severe, and distasteful, so as entirely to prevent sleep until it takes its departure in the morning. The co-existence of other tokens of syphilis, by taking into account the age, constitutional habit, probable state of health of the patient. Syphilis is not uncommon in children; it is even congenital, but it seldom affects the eye at that early period of life. There is another peculiar form or variety of Iritis, called the Asthmatic or Rheumatic. It occurs mostly in persons whose subject to faint or rheumatism, like them is liable to return again again. It is seldom that much or permanent damage to vision is affected by a single attack; but adhesions readily form under it, lymph is effused - in each successive attack fresh effusion takes place; the pupil becomes more or more contracted; it may be ultimately filled up by an opaque pléu of lymph. Unlike Syphilitic Iritis the lymph is seldom deposited in distinct masses; the contracted pupil keeps its central position; the pink zone of blood-vessels encircling the conjunctiva does not sur
up so close to the cornea as in the other varieties of Iritis; but a white ring is left between the cornea & the anterior margin of that zone. The colour of the zone is not as bright as in other forms of Iritis; it is of a somewhat livid, or purplish hue; the larger vessels at the back of the eye, belonging to the conjunctiva, are apt to become tortuous & varicose. Arthritic Iritis is often met with in combination with Rheumatic Ophthalmia, can hardly be distinguished from it, nor does its treatment differ in any respect from that prescribed for Rheumatic Ophthalmia.

The treatment to be employed in cases of Syphilitic Iritis is similar to that of Diabetic Iritis, more or less modified by the general principles laid down for the case of Venereal Disease. Oil of Sapparaine, has moreover been recommended by Dr. Hugh Carmichael of Dublin, in Syphilitic Iritis, and other deep-seated inflammations of the eye. The dose is a drachm thrice a day. Its disagreeable flavour, nauseating effects, may be obviated by giving it in the form of emulsion. If it induces Stomachy, blistered tea orombor-guelp may be administered; or its use suspended...
for a time. The tendency to Heartburn which it sometimes causes, may be prevented by the addition of 10, or 15 grains of Carbonate of Soda, to the eight ounces of emulsion, containing one ounce of Squirrel. — The Retina sometimes becomes affected in cases of Cataract. This will be indicated by greater sensibility to the impression of light; by deep-seated pain darting through the head; by the manifestation of imaginary sparks of fire, & flashes of light before the eye.

Amarexos. Under this name, I shall include the various disorders of the internal structures of the eye, known as Retinitis, Choroiditis, & Inflammation of the Hyaloid Membrane. — Amarexos is a very obscure disease. It is capable of being caused by various morbid changes, the exact seat & nature of which, we often have no means of determining during life, which frequently leave no traces behind them in the dead body. The symptoms of Inflammation of the Internal Spheres of the eye-ball, are so very perplexing, that it would be almost impossible in our present Knowledge of Ophthalmic Medicine, to give a good general description.
of their progres: termination. There is one division of amaurosis which immediately suggests itself. The cause of defect may exist in the Brain, at or beyond the origin, of the optic nerve; or it may be situated in any part of the course of that nerve, from its commencement at the base of the brain to its termination in the Retina; or it may be confined to the retina itself. There is reason to believe that the functions of the Retina may be impaired or suspended, by deviations from the natural quantity of blood sent to it, by disturbances of its circulation. Various degrees of amaurosis are common among persons who employ the sense of vision overmuch, strain the eye. This overuse is likely to produce congestion or chronic inflammation in the vessels of the retina; very slight changes of that kind may seriously affect the function of a part so delicate a member. Amaurosis is frequently met with among those whose occupations oblige them to look attentively at small or bright objects during many hours of the day, or what is still more pernicious, during many hours of lamp or candle light; so as habitually to fatigue the eye. Engravers, Printers, watchmakers, Tailors, Milliners, Mathematical Instrument
makes, Persons who gain their bread by writing, miniature Painters, Cooks who are exposed to the heat, &c. in the presence of large fires, men who have the charge of forges or furnaces, &c. We call these cases of Anæmias— but they may be pretty considered to be instances of Chronic Inflammation of the Retina. We cannot see the suffering part indeed during life, the complaint is not a fatal one; therefore, we have few opportunities, or none of examining after death the condition of the Retina which, while the Anæmia is yet recent. But, judging from the nature of the cause that precede the defect of vision, or from the nature of the remedies that are often found to remove it, we are warranted in regarding the essence of the disease to be Retinitis.

Inflammation of the retina is fortunately a rare complaint, as the severity of its symptoms occasions great suffering to the patient, very frequently followed by loss of vision. Many may have heard of Ophthalmia that I have seen in Tripoli; I can now only remember having met with one case of well marked Retinitis, that indeed in Total Blindness. The Retina is not very vascular, the amazing fatigue which it contains
without injury shows that it is not susceptible of inflammatory action. Symptoms of imperfect vision; pain in the eye-ball & head; flashes of light illuminated spots; dark spots or other optical illusions, appearing before the eye, accompanied with an unnatural state of the pupil, which is generally dilated immovable, announce the existence of Amausosia. The greater number of the cases of Amausosia depending upon a morbid condition of the Retina itself, below the Chyle that has now been described: there is congestion of the vessels of the retina; or inflammation, chronic or acute. In a few instances, a totally opposite condition of the blood vessels is presumed to exist; may fairly be ascribed to a deficient supply of blood to the vessels of the Retina. We see this defect of sight produced by a diminished circulation through the Retina, in cases of approaching syncope under hemorrhoage; we can therefore the more readily believe that a more permanent Amausosia may be occasioned by causes that gradually lessen the quantity of blood circulating in the body and debilitate the whole system. Amausosia may be brought on by some long continued drain upon the system, as sometimes noticed in maces. Such cases are not uncommon, their well known occurrence has probably tended to encourage the
notion that amaurosis is always essentially a disease of debility, requiring tone stimulant remedies.

From what has already been said it will be seen how confusing it is to determine in such cases, to look closely into all the circumstances under which the disease has occurred. When amaurosis is the result of pressure, or of disease, in the course of the optic nerve, or in the sensorium, the complaint is generally left within the power of remedial measures. In many instances we cannot indeed, say where the cause of the defect lies.

There is something very peculiar in the expression of countenance, in the face of an amaurotic person, by attending to which alone, you may almost recognize the disease. He comes into a room with an air of uncertainty in his movements; the eyes are not directed towards the surrounding objects; the eyelids are wide open, the patient seems gazing upon vacancy—has an unmeaning stare; there is a want of that harmony of movement and expression which results in a great measure from the information obtained by the exercise of vision. This seeming stare at nothing at all, is not observed in patients who are blind in consequence of opacity of the
crystalline lens or its capsule, in cases of cataract. These, on the contrary while they cannot see, still seem to look about them as if they were conscious that the power of sight remained to the retina, although light was shut out from them it.

When the amaurosis is incomplete, the motions of the iris are sluggish, the pupil larger than ordinary. When the blindness is total, the most common condition of the eye is that of great dilatation of the pupil so that a mere ring of the iris is visible; complete immobility of the iris. Sometimes on the other hand, though the amaurosis is total, the iris is as active as ever; this happens when the amaurosis is confined to one eye. You examine the diseased eye, you find that the pupil enlarges or contracts, as you diminish or increase the light; but this only happens while the other eye is open. Shut the sound eye, try the amaurotic eye again you will find its pupil fixed, although you vary the light applied to it. In fact the associated movements of the iris are natural but its independent movements are lost. But sometimes the independent movement is unaffected: Nay the motion of both irides may
be perfect, although both eyes are completely amaurotic. Cataractous, when both eyes are affected, that is a sound for supposing the cause of the disease to be situated within the cranium. Also in the case where one eye alone was amaurotic, the independent motion of its iris remained unimpaired, we may equally presume the seat of the complaint to be within the cranium. There are other causes of amaurosis besides those already adverted to. It is sometimes produced by the presence of worms in the alimentary canal. It has some obscure connection with teething. Amaurosis is said also to occur as a hysterical affection; certain poisons will produce temporary amaurosis; the superposition of certain natural evacuations, as of the perspiration, of the menstrual discharge, of the bleeding from Piles, the sepulchre of certain eruptions, have been charged by authors with producing the same complaint.

In those cases in which Amaurosis sups on sloth viciously, or it is apt to do from various causes, those particularly when it depends upon a low chronic inflammation superimposed upon habitual congestion of the vessels of the internal tunic of the eye, its approach is masked by sundry curious affections of the vision. The eye feels
falsely full or stuff and sometimes there is pain of the head in its neighbourhood; the patient complaining that he sees things through a fog or mist, or as if a thick piece of gaude were interposed between his eye and the object he is looking at. In the daylight the gaude or fog seems dull and misty, but in the dark it often appears shining, reddish, and fogy. The flame of a candle is seen surrounded with a halo of phroematic colours. Staining of any kind which augments for the time the fulness of the vessels about the head, will make the mist appear more dense; the same effect may be produced by tying the neckcloth tight, or even by stooping. Sometimes the perfect amaurosis is preceded by a remarkable diminution of the apparent size of the objects looked at. More commonly ocular cataracts become visible, that is parts of the Retina lose their power or perhaps are eclipsed by turbid vessels; the patient seen flies in the air (Unca Volitantes) or particles of root, which always float before his eyes, seem to follow their motion; or which are especially plain troublesome when he is looking upon a white surface. They multiply in number till the whole becomes dark. The appearance of these Unca Volitantes,
However, even when they are permanent, do not necessarily imply the approach of amaurosis.

It is obvious that no particular rules which will fit all cases can be laid down for the treatment of so multifarious a complaint as amaurosis. When it manifestly results from disease of the brain, as when it accompanies hydrocephalus, or remains after a stroke of apoplexy, our attention must be directed to the disease from which it has arisen. When there is any reason to suspect that congestion or chronic inflammation of the internal tunic of the eye itself is concerned in the production of the amaurosis, we must adopt depletive measures more or less actively, and (omitting the use of belladonna) the treatment to be pursued ought to be nearly the same as that already recommended in cases of kriss. Bloodletting, general or topical, according as the more or less pain, fever, stiffness of the system, according as the amaurosis is more or less recent. Above all mercury, so administered as to affect the prime, rapidly introduced into the system in the acute cases; more slowly in proportion as the disease has existed more gradually blunted longer. When there is ground
for suspecting that the blindness takes its rise in vascular exhaustion, or nervous debility, we must have recourse to tonics; Bach, the preparation of Iron, nourishing diet, and the cold bath. In doubtful and obscure cases of Amaurosis I should always recommend a trial of the Mercurial plan. After all many cases will baffle our best-directed attempts (we will be required unwillingly to try other expedients). When rational measures have been expended in vain, we must have recourse to such as are empirical tentative. There are various stimulants which have occasionally been found serviceable; but most of them fail much oftener than they succeed. Electricity is one of these: it is applied by taking small sparks from the eyelids, from the integuments round the orbit. The object of this is to rouse the dormant energies of the impugnive nerve. It ought not to be employed where there is any inflammatory action at the bottom of the complaint: it should seldom be tried therefore when the affection is recent. Strychnia has, of late years, been used for the cure of Amaurosis; it does good when it is useful at all, by stimulating

the exhausted or atonic nerve into action. It
must not be tried, if the blindness depends
upon any condition akin to inflammation.
Mr. Middlemore of Birmingham considers that
it is most efficient when placed over the
superior-orbital nerve. He puts a narrow blister
above the eyebrow, when it has risen he cuts
off the cuticle, and applies a piece of linen
for half an hour to absorb the serum that
continues to ooze forth; then he sprinkles
the Erythrina finely powdered, upon the raw
part, covers it with linen smeared with the
Epsom-acetate Ointment. He repeats this
every twenty-four hours, cautiously increasing
the dose till the vision improves, or some
sensible evidence of the opening of the Erythrina
becomes apparent. He commences with the
sixth part of a grain. The blister requires
to be renewed every third or fourth day.
A little smarting is felt on the application
of the Erythrina, but has even produced syphilous
inflammation of the part. The conсти-
tutional symptoms occasioned by it, are head-
ache, agitation, stiffness of the whole body; sometimes
shooting pains in the eyes, occasionally numbness,
Convolusions have followed.

When any unpleasant symptom takes place, the dose ought to be lowered, or intermittent, at least, of Morphia applied to the blisteres past.

Amaurosis produced by Narcotics, intoxicating liquor, is only temporary, and vanishes as its cause subsides.

General Ophthalmia, or inflammation of the whole eye. (Ophthalmitis Tropisatica) — We substitute the term Ophthalmitis, for that of Ophthalmia, when the inflammation of the eye is so extensive, as to affect almost all its textures.

This disease is characterized by severe deep-seated pain, increased redness, inflammation of the eye; a sense of tension & feeling of the organ being too large for the orbit, about to burst from it; early loss of sight, with discoloration, Iris, and contracted, immovable pupil; swelling immobility of the globe with partial protrusion of it & the eyelids; severe inflammatory fever.

At the commencement, the characteristic injection of both the forehead & conjunctive is evident; accompanied by, with severe burning
or throbbing pain, a sense of bursting distension. The surface of the organ is itself stiff and dry; but copious lachrymation soon commences, its increased by exposure to light. The conjunctiva also increases; the conjunctiva swells into a broad firm ring of chemosis around the cornea, which it partially overlaps. Intolerance of light, diminuts of vision, contracted pupil, impaired brilliancy of the iris, vacuities, syphilitic foci, are present, together with the above symptoms, constitute the first stage of the complaint.

The motions of the globe, now become difficult and painful; the pain more severe, violent, extending to the brow, cheek, temple, head. The iris changes its hue, from blue or gray to dull green, and from brown or black to a reddish tint. The eyeball swell, loses its power of motion; the cornea grows cloudy, optically opaque; but vision is partially lost before these changes occur. The patient now perceives luminous flashes or sparks in his eye, owing to disordered action in the retina, the vascular distention of the internal tusses generally occasions a sense of bursting.
The deep-seated swelling, external common, partially erect, the inflamed eyelids which this resemble, especially the inferior, a red, fleshly mass, both the ball lids are protruded and immovable.

The second stage is now fully developed—

Sympathetic inflammatory fever always accompanies this severe disease. The local symptoms are proceeded, or attended at this commencement, by chills, or rigors, followed by headache, white tongue, thirst, hot dry skin, vascularized, hard, full face. These are increased at night, accompanied with watchfulness, throbbing in the temple, fever.

If the disease be not arrested, the pain becomes throbbing; delirium sometimes occurs at night; chills or rigors are felt, indicating impending suffocation. The cornea is first a dull white, then yellow, when matter is formed. The throbbing external pain continues, for some days, until the cornea bursts externally, and gives exit to the matter. The coats of the eye collapse, and form of the organ is lost.

This complaint is characterized by the simultaneous affection of both the internal, sentinal tunic, and distinguished from other Ophthalmia, by the following circumstances:
Pain, swelling, intolerance of light, lacrymal discharge, impaired vision, are all equally developed, but in the specific inflammations of the eye, one or other of these is always predominant over the rest, and accompanied by some peculiar local constitutional affection. These symptoms commence at the same time in an equal degree, continue very nearly so throughout, but in the other Ophthalmitis, this correspondence is remarked neither at their commencement nor during their progress. Ophthalmitis is always attended by severe sympathetic fever; but the specific Ophthalmitis are generally without fever, even when most severe. It is only in the first stage that we can hope to preserve the sight. In the second stage, this will rarely be accomplished.

Treatment. — In the first, second stage, the most active antiphlogistic measures must be practiced: — general blood-litig, cupping, leeches applied around the eye, and separation of the protruded lids, with active cathartics; calomel & James powder in
full repeated doses, turpentine given by the mouth, sin nasum, with castor oil, t. belladonna, may constitute the chief remedies. If suppuration have occurred, the anterior chamber being full of matter, the evacuation of it by a free opening into the cornea, will give relief, not increase the inevitable mischief.

Traumatic Ophthalmia.—It has been explained in the preceding articles, how each texture of the eye suffers in its own way, from inflammation excited without any evident mechanical or chemical injury, thereby giving rise to Patho-pathic Ophthalmia. It will now be my purpose to give a short description of Traumatic Ophthalmia, or inflammation of the eye caused by external violence applied to that organ. Now, the inflammation thus excited by mechanical or chemical injuries, may attack one or several of the textures of the eye; in fact, we may have traumatic Conjunctivitis, traumatic Corneitis, traumatic Irisitis, &c. &c. It is remarkable that traumatic inflammation
in any of these tissues of the eye, are alike in every respect to the Therapeutic Ophthalmia which have already been considered. This remark, if duly appreciated will in a great measure point out the treatment which we should adopt in cases of traumatic Ophthalmia. Funicular inflammation of the Conjonctiva, arising from injury, is to be treated in fact, exactly as we treat catarhal ophthalmia. In traumatic Iritis, the three great objects, to abate the inflammatory action by depletion, to oppose the contraction of the pupil by Belladonna, to arrest the effusion of lymph by Mercury, are to be followed out, exactly as in Rheumatic or Syphilitic Iritis.

Without a knowledge of the inflammatory diseases which are excited in the different textures of the eye, by atmospheric and constitutional causes, we should be but little able to understand the inflammatory effects of evident mechanical and chemical injuries upon these several structures; but having such a knowledge, both the symptoms and treatment of Traumatic
Aphthalmia become perfectly simple. These symptoms vary, in regard to severity, while in one case, a single texture, in another case, several textures of the eye will suffer; still, the invariable peculiar physical and vital properties of each texture serve to produce, under whatever circumstances, or by whatever cause inflammation may have been excited, the same essential phenomena.

The general treatment of Traumatic Aphthalmia consists in rest of the eyes and the body, exclusion of light, low diet, purging, bleeding; calomel, opium, refrigerant applications to the eye, and dilatation of the Pupil.

An important rule regarding the treatment of Traumatic Aphthalmia, i.e., that we should be on our guard against effects which are apt to be produced, but which may not yet be present, against effects implicating the interior textures of the organ, although the injury has been, or at least has appeared, to be merely superficial. A considerable part of our treatment must be preventive.
We must not delay to take away blood, till severe strabismus, with acute circumorbital pain, sets in. We ought to bleed from the moment of a severe injury. We must not wait till the Pupil is evidently closing; but apply Belladonna, impress it. We must not wait till the Iris grows discolorised, or Lymph is effused into the chamber; but, from the very first, put the patient on Colomel Tonicum, if we apprehend from the nature of the injury, that Iritis is likely to be the result.

Sometimes, after all the symptoms of severe inflammation of the eyes following mechanical or chemical injure, have been removed by depletion, counter-irritation, mercury, &c., a very troublesome, irritable intolerance of light, with Epiphora, is apt to remain. In such cases, an Emetic; or Perspiratives, followed by Tonics, occasionally antiseptic, the internal use of Atalactumum, will be found highly serviceable in removing the disease. The best local applications are the Vapours of Laudanum, the Bumac Emetic Solution. Into a cup of boiling
water, a teaspoonful of laudanum is thrown into the cup held under the eye, the eyelids opened, and the vapours allowed to come into contact with the conjunctiva. The eye is then bathed with the mixture, by means of a linen sop. This may be repeated twice or thrice a day.

In some cases nothing will relieve the epiphora so much as a solution of lunar caustic, two or three grains to the ounce of distilled water—dopped on the conjunctiva, once or twice a day. Blister applied on the temple, or in front of the ear, complete the remedies used for the cure of this complaint.

I shall now end by quoting Dr. Watson's concluding remark on the article Ophthalmia, in his inimitable lectures on the Practice of Physic—

"that by attending to the disorders of this beautiful little organ, many, useful lessons are learned, of no small interest in their application to the morbid conditions of other parts. The invaluable power that Mercury, when properly administered, has of arresting the effusion of lymph from the bloodvessels,
"that inflammation of a given part maybe sensibly modified by the simultaneous agency of some specific poison upon the system, as that of Syphilis; or by the presence of constitutional tendencies to disease, such as are observable in gouty and rheumatic people. That the function of a nerve may be suspended, suspended, or abolished, in various ways; by pressure made upon it; by a plethoric state of its bloodvessels, or by an empty state of them; by inflammation of its texture; and even in some so mysterious, or hitherto unexplained means, by mere irritation of a distant part; by worms, for example, in the alimentary canal; by poisonous substances introduced into the stomach; and by what, in our ignorance, we denominate the freaks and caprices of Hystericla disorder.

All these useful lessons may be learned by an attentive investigation of the various diseases that have heret been included under the name of Ophthalmia.

Finis

28 March 1854
Robert Graham Dickson