

## Original Communications.

### FOUR CASES IN WHICH THE ENTRANCE OF AN IRRITATING FLUID WITHIN THE EYELIDS CAUSED DEEP-SEATED OPHTHALMIC DISEASE.

IN THREE THE RETINA WAS IMPLICATED; IN ONE ACUTE RHEUMATIC OPHTHALMIA WAS EXCITED.

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CASE XXXVIII. *An Instance in which the entrance of Creasote within the Eyelids induced serious Retinal Disorder ("Ocular Hyperæsthesia," Mackenzie): Recovery.* J. G., a glass painter, 39 years of age, of a naturally sallow complexion, and of good general health, who was accustomed to a liberal diet, and belonged to a long-lived family, came under my care on the 5th of January, 1855, in consequence of a fellow-workman having, by way of a joke, thrown into his eyes a quantity of creasote.

The eyes, when seen by me, half an hour after the accident, were excessively irritable to light, and the sight, the patient said, was extinct; upon placing him in a much moderated light, I found that he could see large objects. The pupils were contracted, but not extremely; the left was the smaller. The posterior parts of the eyeballs presented an orange red colour, of the same shade as is produced by the admixture of blood and creasote.

*Treatment.* Half a grain of opium to be taken every fourth hour for the next twenty-four hours. Compresses wrung out in cold water to be constantly applied to the eyes. With a view to counteract inflammation, a blister was ordered to be placed behind each ear.

For the following notes I am chiefly indebted to the patient, who is a very intelligent man, having been educated for a schoolmaster:—"When the spirits of tar first went into the eyes, it felt like liquid fire, and the vision became at once red and flaming. The cold water applications dulled the pain, and it became of a dead aching smart, similar to a burn of the flesh. After the rising of the blisters, the eyes felt to be swollen and too large for their sockets. I was quite dark (blind?) till the temples were blistered, and I took some pills." (January 8th.  $\mathcal{R}$  Hydrargyri c. cretâ, extracti conii, aa ʒss. M. Fiat massa in pilulas xii dividenda, quarum sumat duas ter in die.) "When light became dimly visible to the right eye, the left continued as bad and painful as ever, especially in the eyeball and temple." For the relief of a symptomatic fever which was present, he had the following mixture:

$\mathcal{R}$  Vini antimoni potassio-tartratis ʒss; liquoris ammoniæ acetatis ʒiiss; spiritus ætheris nitrici ʒs; aquam camphoræ ad Oss. M. Fiat mistura cujus sumatur ʒi 4tâ quaque horâ.

Bright light was excluded from his chamber.

Jan. 15th. Blisters were applied behind the ears with relief to the ocular and cephalic pains. Between the right eye and an object canvas appeared to be placed; the left was so irritable that he could not open it. When I separated the lids great pain was excited in the organ, and a ball of fire seemed to the patient to be before it. "My mouth" (continues the narrative) "now became sore, and to relieve the pain in my head a blister was applied to the back of my neck, yet I did not experience any change for the better; but as my mouth, tongue and throat became more sore and swollen, so my eyes became clearer, the right so much so that I could clearly perceive the outline of the pattern of the paper on the walls of my bedroom, or any other object in the room, but not for any length of time. I could also open my left eye a little, and see a very pale dim light, which, as the salivation increased, became more clear and distinct; but the light continued only for short intervals of about twenty or thirty minutes, when I was obliged to sit with the eyelids closed, and was in great pain in my eyes and temples, accompanied by a running of water which scalded the face.

"When I was sufficiently recovered to go out of doors (Feb. 16), my eyes felt as if they were scalded by the air, although I wore my glass shades and a large silk one. Pain in the temples accompanied the soreness and running. If I tried to read, I could not do so many minutes before all the letters became confused together; objects appeared dim, and there was pain in the eyes and head, which was particularly severe through the temple. After sleep or sitting with the eyes closed, something

like fine white sand appeared on the eyelashes, and around my eyes it felt rough; I could not see it, but my wife said it was fine sand. At this time—about two months after the accident—the vision was clear for an hour or two at midday, dull and dim at dusk, and worst of all by candlelight. Sometimes in walking along the street I became blind, and there appeared before the eyes red and yellow rings; on one occasion I was nearly run over by a cart, and had to feel my way home with a stick."

In March the left eye relapsed into permanent dimness, a mist, like falling flakes of snow, appeared before it. The eye was (March 5) intolerant of light, watery, and irritable, like that of a person who has suddenly come out of darkness into the light. For this state a variety of treatment was tried for two months consecutively—flying blisters to the temple; internally, pills of belladonna and quinine, ferruginous tonics, and iodine. The external appearance of the eye, during the period named, did not indicate the presence of deep-seated mischief; the pupil was moderately lively, the conjunctiva only insignificantly injected by pale red vessels; there was not now nor had there been since the accident a zone around the cornea. The slightest touch upon the eyelids excited convulsive movements in the orbicularis, and the straight muscles of the globe, with winking and a discharge of tears. Considering these symptoms as indicative of asthenic erethism of the second pair of nerves and of the ophthalmic branches of the fifth, I placed upon the conjunctiva a drop of Battley's liquor opii sedativus. On the next day the sight of the eye was clearer, and by perseverance in the remedy the vision was restored. The patient, rather unwillingly, resumed his trade in May: since then the eyes have been as good as they have been for the last twenty years.

In regard to the recovery of the patient, although not acquainted at the time with Dr. Mackenzie's account of "Ocular Hyperæsthesia," I, from the first and throughout the case, entertained and pronounced a favourable opinion.

When sixteen years of age, J. G. was salivated by a druggist for an attack of subacute rheumatism, incurred by sleeping in a damp bed. The mercury completely disordered his health, which had previously been good. For two or three years following, he was affected at intervals with blindness, locked jaw, and rigid flexure of the right knee joint; sometimes he barked like a dog. These hysterical symptoms appeared and subsided suddenly; they seemed to be little influenced by medical treatment: I believe them to have been connected in some measure with immoral practices, although the young man was in a sense chaste, and continued so till the age of thirty, when he married, and in time became the father of children.

REMARKS. This case is illustrative of a curious disease described by Dr. Mackenzie in his *Practical Treatise on Diseases of the Eye*, fourth edition. "From the photophobia of scrofulous or any other ophthalmia," observes that learned author, "we distinguish ocular hyperæsthesia by the age of the patient, and by the absence of redness of the eyes. From retinitis it is distinguished by the excessive pain and intolerance of light—symptoms which do not attend inflammation of the retina; and by the complete and generally sudden restoration to the exercise of vision which happens in hyperæsthesia, whereas the recovery from retinitis is slow and uncertain. After recovery from hyperæsthesia, there is no evidence that the nutrition of the retina, nor of the other structures of the eye, had been at all interfered with; retinitis generally leaves both the sense of vision and other parts of the eye seriously compromised in texture and function." M. Pétrequin, in his *Practical Treatise on Amaurosis*, etc. (Paris, 1841), describes a somewhat similar, if not the same disease, under the name of *erethistic amaurosis*. He recommends, for its treatment, a collyrium of lettuce water and opium; and the internal exhibition of pills containing valerian, henbane, and oxide of zinc—Meglin's pills.

CASE XXXIX. *Retinal Blindness and Ocular Hyperæsthesia from Lightning: Recovery.* Mrs. W., aged 53, a florid and healthy looking woman, residing at Pennsnett, Staffordshire, came under my care at the Birmingham Eye Infirmary, on July 17th, 1855, on account of her right eye having been struck blind by lightning, upon the 6th of the preceding month, while she was sitting at a window; the electric fluid also denuded the skin of the forehead and face of the same side. The affected eye was closely covered by a handkerchief to protect it from the light, which affected it so painfully that it was only after darkening the room, by drawing down the blinds, the examination of it could be borne.

*Right Eye.* I found the pupil dilated and motionless when the usual test was applied; no zone around the cornea; the conjunctiva was inflamed, more especially where it lines the eyelids and forms the semilunar fold.

*Vision.* The ability of distinguishing day from night was abolished.

*Subjective Symptoms.* She complained of a constant aching pain in the back of the eye and of stabbing pains through it, both of which extended into the brain, and sometimes to the occiput; also of severe and constant pain in the vertex and forehead, similar to that she endured when suffering from typhus fever. In a dark room flames of fire appeared to play before the eyes (photopsia); the same occurred in daylight if she happened to stoop her head towards the ground. The whole of these symptoms have existed from the time of the accident, and have prevented sound sleep: the pains are intensified by daylight.

The *Left Eye* was not inflamed, but so weak and irritable that even large objects were only indistinctly seen, while in twilight the sight was much improved, yet not quite perfect. The pupil was of natural size, and its movements were sluggish.

*Treatment.* Taking into consideration the healthiness of the patient, I conceived that probably mild therapeutic means would enable her to recover from the shock, and the cerebro-ocular congestion to which it had given rise. Accordingly ten grains of purging mass were directed to be taken every night, a blister to be placed behind the ear, and the eye to be bathed by a saturnine lotion. These means mitigated the pain and photopsia, but as the pupil and blindness were unrelieved on the 24th, and *puro-mucous conjunctivitis* was well marked, I prescribed a grain of calomel with a  $\frac{1}{4}$  gr. of opium to be taken twice a day, and as often a solution of nitrate of silver (gr. ii to  $\zeta$ i) to be applied to the conjunctiva. Lotion as before. In a week afterwards, July 31st, tartar emetic ointment was ordered to be rubbed into the nape. The patient came for a repetition of the remedies on the 21st of August, and again on September 4th. On the 18th of the same month she called to declare herself cured. All the tissues of the eye appeared normal, the pupil of natural size, and the sight was perfect. From the counterirritation Mrs. W. considered that she had derived especial benefit. The mercury did not at any time affect the gums, or cause intestinal irritation.

CASE XI. *Retinal Blindness induced by the entrance within the Eyelids of a Boiling Solution of Soda and Soap, the other Tissues and the Humours of the Eye being apparently unaffected. Recovery of Vision: an Epileptic Seizure and Recurrence of Amaurosis.* Hannah Bodfish, aged 20, a servant of all work, a remarkably healthy and strong-built person of florid complexion, applied to the Birmingham Eye Infirmary on Friday, 12th January, 1855, on account of retinal blindness of the right eye. She said that as she was washing on the preceding Tuesday, near to a furnace of boiling water, in which had been dissolved a quantity of common soda and yellow soap, two bricks accidentally fell into the hot solution, which splashed up against her face and entered the right eye. She immediately walked out of the washhouse into the kitchen, which was near at hand, sat down on a chair, and fainted; she did not fall or receive any sort of injury other than that related. In a short time, "having come to herself," she became aware that the skin of the right eyelid, the cheek, and of the corresponding side of the neck were swollen: they were not blistered. The tumefaction of the lids was so great that the right eye could not be opened. To the scalded parts her mistress applied flour and oil; and on the following morning, the palpebral tumescence having subsided, she opened the eye, but found it to be quite blind: the left eye was not affected. She did not obtain medical advice till the fourth day of the accident, when she presented herself as an out-patient at the Birmingham Eye Infirmary. At that time I noted, in addition to the particulars given above, that her expression was naturally heavy, the eyes rather small, and deeply set in the orbital cavities, and that the superciliary arches were prominent. The right pupil was dilated and immovable, even when light was suddenly admitted to the retina; the humours were pellucid; the patient was quite blind; the conjunctiva around the corneal circumference was not injected, but that of the lower lid was somewhat redder than normal: neither ptosis or strabismus was present. She complained of a dull pain in the eyeball, and of uneasiness (*malaise*) in its brow, also of chilliness and thirst. The alvine and catamenial discharges were reported to be regular and healthy. Considering the case to be congestive amaurosis, I directed eight leeches to

be applied to the right temple; two table spoonfuls of a fever mixture, containing small doses of tartar emetic, to be taken every four hours, and five grains of blue pill night and morning. A diet of broth and tea was enjoined.

On the fourth day of the treatment, the only change was the appearance of a green light before the eye. I esteemed this symptom favourable, and as indicating that the treatment pursued was in the right direction. Six ounces of blood were now ordered to be drawn from the right temple by cupping, and afterwards a blister to be applied to the nape. The antimonial mixture and pills were continued. The cupping relieved the pain in the eye, and restored a slight degree of vision.

Upon the seventh day of the treatment, and the eleventh from the accident, the gums were sore, the pupil contracted slightly on sudden exposure of the eye to light, and the form but not the colour of my hand could be distinguished. A pill was ordered to be taken once in every twenty-four hours.

On the eleventh day of treatment vision was worse. The nape of the neck was ordered to be blistered and afterwards dressed with savine ointment; and the blue pill to be taken every morning as well as night.

Upon the fourteenth day of the treatment and the eighteenth from the accident, the pupil had assumed the same diameter as that of the companion eye; vision was much improved, and in four days afterwards was perfect, but intolerant of use. She could read small print, thread a needle and sew.

On the twenty-eighth day of the treatment, asthenopia continued. There was slight conjunctivitis of the left eye. She was ordered to take a grain and a half of quinine three times a day, and blue pill on alternate nights.

Feb. 23rd, sixth week of treatment. The sight was perfectly good, but still weak. The patient did not appear to be at all reduced by the remedies. She discontinued her attendance, and I heard no more of her till the 28th of April, when my friend Mr. John Elkington, of Erdington, informed me that she had very recently suffered from an epileptic seizure. I called upon H. B., and found her anæmic, in poverty, and amaurotic in the right eye. The sight was not improved by looking through a pin-hole aperture in a card. She removed from Erdington, and has not since been heard of.

REMARKS. What was the cause of Bodfish's blindness? Was it hysterical amaurosis? The physiognomy, the contour of the body, and strong constitutional power, as evinced by the perfect tolerance of an antiphlogistic plan of treatment, emphatically preclude such a notion. For the same reasons, and from the gradual improvement in the amaurotic symptoms under the treatment pursued, we may conclude that the congestion, whether within the eye or the head, or in both—cerebro-ocular—was of the sthenic kind. The precise etiology, it must be confessed, is not devoid of obscurity. A solution, however, in accordance with the whole of the facts of the case, and, moreover, with the clinical history of amaurosis when resulting from injuries of the ophthalmic division of the fifth pair of nerves, may be found in the supposition that the boiling alkaline solution inflicted mischief upon the retina through the medium of those filaments of the fifth pair which are distributed to the globe, lids, and neighbourhood: and that the irritation or shock, having been conveyed to the nervous centre, was reflected along the optic to the retina, there exciting acute congestion. That the nervous centre was seriously disturbed by the accident, appears evident by the occurrence of anæmia, of an epileptic seizure, and recurrence of the amaurosis—symptoms, be it remarked, that arose after the young woman's apparent recovery from the more grave primary effects of the scald. Indeed, should this case terminate in chronic cerebral disease, it will but add to the number of instances where irritation of the fifth pair has so eventuated. A yet more simple theory would be—that the accident was followed by an intercranial hæmorrhage, which made pressure, directly or indirectly, upon the optic nerve, and that the relapse was due to some further cerebral mischief.

CASE XII. *Severe Rheumatic Inflammation of the Eyeball excited by the entrance of a Boiling Solution of Gold and Cyanide of Potassium within the Eyelids: Recovery.* On June 24th, some hot solution of gold and cyanide of potassium spirted into the left eye of Mr. B., who was at the time healthy, and thirty-six years of age. The accident caused redness of the part, a severe burning pain, dimness of vision, and intolerance of light; the redness increased; on the third day of the injury the eye ached, and when suddenly turned upon its axis, felt as if it had been struck a blow. All these symptoms progressed in intensity, so that on the fourth day of the accident the patient was unable to look, and at night suffered from "hemi-

crania." Mr. B. obtained medical aid, for the first time since the injury, upon the 3rd of July—eight days afterwards.

On July 12th I saw the case in consultation: the patient said that the eye felt distended, and that the eyelids seemed to press upon the globe, although neither spasm of the orbicularis muscle nor chemosis of the conjunctiva were present. In the left temple a sense of pressure was experienced, which descended to the upper wisdom tooth of the same side; and thence pain of a more acute character spread over the corresponding half of the face and head. The scalp was so sore that the slightest touch was insupportable. The pains underwent considerable aggravation at night. Mr. B. had hitherto used linen, dipped from time to time in cold water, as a local application to the painful parts, with the effect of inducing perfect ease so long as the temperature of the surface was maintained at a low degree. Darkness was indispensable for the comfort of the eye, which presented, on examination, intense conjunctival redness, and iritis with watery discharge.

HISTORY. Nine years before, the patient met with a similar accident from the gold solution: it was followed by ophthalmia, intolerance of light, and hemicrania, for which he used poultices only, and in a week resumed his avocations. A year and nine months since, he was laid up two months and nine days with acute rheumatism, which affected the head, and the joints both large and small. He got out of doors on the 2nd of December, but was not free from pain. At Christmas the disease again detained him within doors five weeks.

It would be foreign to my object to relate the treatment I recommended for the ophthalmia; it will suffice to say that, in less than three weeks, the eye was healthy functionally and organically, and the patient able to walk several miles.

#### CASE OF SWALLOWING AN ARTIFICIAL TOOTH, WITH ITS PLATE.

By EDWARD LISTER, Esq., Liverpool.

On the 22nd October, 1855, I was requested to visit a lady, aged 26, who had swallowed a mouthful of pancake, and supposed that a portion of it had remained in the throat. The probang was introduced, and removed the obstruction.

Her husband called upon me the following morning, and said that his wife had been in the habit of wearing a false tooth attached to a gold plate for several years; and that, about half an hour after my departure, she had missed it, and felt certain that she must have swallowed it.

Oct. 23rd. She passed a very restless night, and complained of pain on the left side of the epigastrium, which increased upon pressure. I directed her to apply warm fomentations to the part, which in some measure relieved the pain. Her countenance appeared irritable; her bowels were in a confined state. I ordered a half-pint mixture containing sulphate of magnesia, powdered acacia, and tincture of hyoseyamus; and directed her to partake of as much farinaceous food as possible.

7 P.M. The bowels have been freely moved by the mixture. About 2 o'clock she experienced very great pain, but at the present time it is much better, and has moved somewhat towards the pyloric orifice of the stomach. She was ordered to continue her medicine in smaller doses. Her appetite is poor; she has not the least desire for food. I requested her to be particular in examining her evacuations.

Oct. 24th, 11 A.M. She feels much better, and wishes to sit up. The appetite still remains low. The bowels have been moved twice since the last visit.

2 P.M. The pain has increased to a great degree, and is of a twitching character. I ordered her to have twenty-five minims of liquor opii sedativus, and to discontinue her medicine.

Oct. 28th. She still complains of slight pain in the epigastric region, in precisely the same situation as before. I ordered a mixture containing ʒiiss of liquor opii sedativus, a fourth part to be taken on any material increase of the pain.

Oct. 31st. She is much the same. The pain is increased at times, but is relieved by the opiate mixture. The bowels were ordered to be regulated, when required, with castor oil.

Nov. 8th. The pain is less severe than before, but remains in the same situation. She does not require the opiate mixture, and the bowels act regularly. The appetite is still poor.

Nov. 23rd. She informs me that she has eaten some roast beef and potatoes on the 12th instant, and from that time she has experienced no pain whatever, and feels quite well.

She examined her motions regularly for the first three weeks, not afterwards; therefore it is impossible to state whether the gold plate has passed since that time. She has procured another plate and tooth of the same shape and size.

#### DEATH FOLLOWING THE INHALATION OF CHLOROFORM IN SURGICAL OPERATIONS.

By T. HOLMES, Esq., F.R.C.S.

THERE seems to have arisen lately a desire to deprecate the employment of chloroform in surgical operations, and to represent it as dangerous to the patient's life at the moment of administration, and injurious to the after progress of the case. We are told of the frightful frequency of deaths from chloroform; of its exercising some unexplained secondary agency, unfavourable to the healing of wounds; of its predisposing to pyæmia; of a depressing influence attributed to it, analogous to that of copious bleeding. Now, all this is so opposed to what a daily familiarity with the use of chloroform had led me to believe, that I was induced to review my own experience in the matter, and to look at the published records of the anæsthetic treatment, as contained in the British and continental medical journals, in order to test the accuracy of my previously formed opinions. In the course of this search I came across a valuable paper in the ASSOCIATION JOURNAL for 1853 (p. 131,) containing a tabular view of the deaths from chloroform (the compilers of which are acknowledged to be indebted principally to Dr. Snow,) and some very sensible remarks thereon. It will perhaps be acceptable that I should continue this table down to the end of the past year, and accompany it by some remarks on the method of administering chloroform, which I have seen reason to believe to be the safest, and on the contra-indications, if there be any, to the exhibition of the drug.

I may premise that the following table is compiled from a careful search through the volumes of the medical periodicals published at home and abroad; and that I have not wilfully omitted any, except two cases, both of which were extracted from non-medical papers without any guarantee of their authenticity; in one the editor professed his disbelief, and the other was evidently an American hoax. I make this observation in consequence of a statement recently made by a correspondent of the *Medical Times* to the effect that deaths from chloroform in London hospitals have been concealed of late days. I can only say that I am quite ignorant of any such concealment, and that I should think it hardly possible, considering the publicity under which hospital surgeons practise, and the habit of holding inquests in such cases. I should be loath, however, to believe, on no better evidence than a random assertion, that English surgeons ever contemplated such dishonesty. I think, therefore, I may say that (errors apart) this table contains all the deaths which have so occurred *during* the administration of chloroform from the end of 1852 where the former list stops, to the end of 1855. That some of them were not the *consequence* of such administration, I think admits of no doubt. I shall have occasion to remark hereafter on one case of this kind (appended to the Table), which occurred at St. George's Hospital. The same remark applies to No. 41. The list shows that the number of deaths from chloroform which have come to light in London and the provinces, as well as abroad, have averaged about six per annum since the introduction of chloroform; that the number is not on the increase of late,\* while the use of the drug has been steadily extending ever since its introduction; and that, therefore, we may hope that, so far from its primary administration having become more hazardous, increased practice in its use, and perhaps increased caution in its administration, have still further diminished the little risk which attached to it at first.

In the face of records, showing fifty deaths, most of them occurring under the care of the most experienced surgeons, assisted in many instances by gentlemen whose special duty it is to give chloroform, it would be vain to deny that the administration of this drug is attended with some risk. But is it rational to expect that it should be altogether free from risk? that the power of voluntary motion and sensation should be altogether abolished by the circulation of poisoned blood in the brain without any danger whatever to the motions of respiration and circulation, dependent as they are on the integrity of parts so intimately connected with those which regulate the former functions? Surely not. Nor do the more judicious

\* I find no deaths from chloroform reported in the *Lancet*, vol. i, for last year; and do not remember to have heard of any lately, except the case at St. Thomas's Hospital, a short time ago.