

ART. XIII.—*A Case of General Hydrophthalmia, and also one of Retinitis of both Eyes, successfully treated by Mercury, with Observations.* By JAMES O'BEIRNE, M.D., Surgeon Extraordinary to the Queen, one of the Surgeons of the Richmond Surgical Hospital, Dublin, &c.

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### I.—*Case of Hydrophthalmia.*

MARY ANNE REDMOND, aged 40; robust, much exposed, as a hawker of small-wares, to vicissitudes of weather, and subject to attacks of cold, which “took her with pains in the bones,” admitted into the Richmond Surgical Hospital, under my care, on the 24th of September, 1839, with considerable enlargement and protrusion of the globe of the right eye, and total loss of vision of that organ.

She states that, on the night of the sixth of January last, a window of the room in which she slept was forced in by the storm; that she contracted a severe cold on that memorable occasion; that the affection of the eye commenced soon after with severe pain in the right eye-ball, and right supra-orbital region, followed by vivid redness of the organ; that this pain became excruciating at night, that, after continuing for several days, she lost it suddenly, and, about the same time, had the distinct sense of moderate enlargement and distention of the globe; and that the enlargement proceeded slowly, and loss of vision gradually increased, until an hour before her admission into hospital, when she suddenly observed that she was, to use her own words, “completely dark of the bad eye.”

The present state of the affected eyeball is as follows: Examined in profile, it is completely uncovered by the upper eyelid, and projects considerably more than the sound one; it is equally distended in its entire circumference, and its sclerotic portion has a bluish cast, and appears as if thinned;

the relative distance between the anterior and posterior chambers is preserved. The cornea is not altered in figure, and in size bears a just proportion to that of the rest of the ball. The iris is of its natural colour, and does not project more than usual into the anterior chamber. The pupil is greatly dilated, quite motionless under the stimulus of light, and somewhat irregular at its upper margin. There is slight conjunctivitis, but a greater degree of it at the inner canthus. The lens and all the humours are perfectly transparent, but the bottom of the eye, contrasted with that of the sound one, bears a dark, blackish appearance. The eyelids are neither oedematous nor inflamed, and leave the eye perfectly uncovered. The motions of the eye-ball are not perfectly under the control of the will, and are performed with some degree of pain and difficulty.

The patient is free from all symptoms of constitutional disturbance, but complains of the total loss of vision, and painful sense of distension of the affected eye. Ordered to take a pill, containing three grains of calomel, and half a grain of opium, three times in the day; to have five leeches applied to the upper eyelid, the same number to the lower, and to be placed on low diet.

5th October. The pills have been repeated daily, until the mouth became sore, and, the conjunctival inflammation having continued, leeches have been applied three times, in relays of ten at each time. She has now a certain degree of vision of the affected eye, and the size of the eyeball is considerably less. A blister ordered to be applied to the nape of the neck.

15th. The mouth has been affected until within the last three or four days. The globe of the eye is very remarkably reduced in size, and vision greatly improved; but single objects appear doubled. There is slight strabismus, the axis of the globe being directed upwards and inwards. Ordered to have a small blister applied above the middle of the right supercilium, and to take an ounce of infusion of valerian three times in the day.

25th. Vision greatly improved. Strabismus very slight. Ordered, an acetate of lead lotion to be applied to the eye, and another blister to be placed over the supercilium.

November 10th. Vision perfect, eye of the natural size and appearance. Complains to-day, for the first time, of pain in the right elbow, which is red, swollen, and gives to the feel a sense of fluctuation. Ordered, the pills of calomel and opium to be used as before, and the posterior aspect of the joint to be covered with a blister.

16th. Under the above treatment, the affection of the elbow disappeared in the course of three or four days. But the right knee-joint has also become very red, painful and swollen, and there are evidently extensive synovitis and bursitis of the joint. There is no pain on pressing the articular surface together, and scarcely any at night. Ten leeches to be applied to the knee, and the joint to be fomented with a decoction of poppies.

21st. Knee free from pain and redness, but still considerably swollen. The pill of calomel and opium to be repeated, and the joint to be covered with a blister.

December 1st. The mouth has been again affected, but slightly, and continued so for a few days. The knee-joint is now in its natural state, so is the affected eyeball, and its vision is as perfect as ever it was. Ordered, purgatives and warm baths occasionally, and to have full diet.

Discharged cured on the 14th December, 1839.

*Observations.*—What was the nature of the ophthalmia with which this woman was affected, soon after exposure to cold on the night of the great storm? Although she was not seen for more than seven months after that period, it appears to me that this very leading point may be satisfactorily determined. In this case we see, first, that, previous to either the storm or the attack of ophthalmia, the patient had been exposed to every vicissitude of weather, and subject to “pains in her bones;” secondly, that almost immediately after the hydrophthalia had been removed, the right elbow-joint became attacked with

inflammation; and that this was no sooner removed, than the right knee-joint became similarly attacked, just as occurs in cases of metastatic articular rheumatism. These facts seem to leave no doubt of the patient having been a rheumatic subject, when she was attacked with ophthalmia. Again, we know that, in such patients, the fibrous structures are more likely than any other to become affected from such a cause as exposure to severe cold; and that inflammation of these structures frequently terminates, and relieves itself, as it were, by the effusion of either a serous or a synovial fluid, according, it would seem, as the affected fibrous tissue may happen to be connected with a serous or a synovial membrane. Hence, I infer that the form of ophthalmia with which she was first attacked, was sclerotitis or rheumatic ophthalmia; and that this ultimately terminated by serous effusion into both chambers of the affected eye. The correctness of this inference is confirmed by the fact, that, at the period in question, the patient suffered those agonizing nocturnal pains in the eyeball and circumorbital regions, which invariably attend, and, in a great measure, characterize sclerotitis. It is strongly supported, also, by the circumstance of the patient having been considerably relieved, when, at a later period, the enlargement of the eyeball commenced. Lastly, two facts of another description deserve attention. They are these: hydrophthalmia has never been known to affect both eyes at once; and metastatic rheumatism rarely, if ever, affects more parts than one, at one and the same time. Such a peculiarity being common to both, seems to show that these affections stand more frequently to each other in the relation of cause and effect, than is generally supposed.

In advancing this view of the present case, I am fully aware that Beer has omitted to mention rheumatism among the various constitutional causes of hydrophthalmia; and also that the experience of Mr. Lawrence, Mr. Middlemore, and others, is strongly opposed to the constitutional origin of the disease, or its being in any way connected with metastasis.

But I find that my view of the case is borne out by the experience of an equally eminent ophthalmologist, Juengken, who enumerates rheumatism and metastasis amongst the constitutional causes of the malady. Facts, however, are things too stubborn to be suppressed by the voice of any authority, however high.

2. In the treatment of the three varieties of hydrophthalmia, Celsus, Nuck, Woolhouse, Heister, Sabatier, Scarpa, Lawrence, Demours, Mackenzie, Middlemore, and, in short, all writers on the subject, recommend either paracentesis of the cornea, or of the sclerotic portion of the eyeball, or excision of the cornea, according to the variety to be treated, and the increase of size at which the eyeball has arrived. In fact all ophthalmologists concur in the opinion that one or other of these operations is unavoidable. Yet, in this case, the enlarged and distended eyeball returned to its natural size, and a complete cure was effected, without the aid of either paracentesis, excision, or any surgical operation whatsoever.

3. In that invaluable and truly wonderful work, the Surgical Dictionary, its author, faithfully reflecting the opinions and practice of all ages, speaks thus: "in hydrophthalmia, the prognosis is generally unfavourable, and when the sight is nearly or quite lost, scarcely any hope can be entertained either of restoring vision or preserving the shape of the eye." Yet, in this case, vision, although totally lost, was perfectly restored; and the eyeball, although considerably enlarged, resumed its natural size and shape.

4. In the work just mentioned, Mr. S. Cooper says: "Beer has known great benefit sometimes produced by the submuriate of mercury, combined with digitalis, and a drink containing supertartrate of potassa, and borax." In this passage we see that Beer used mercury in this disease as a sialogogue, and in no other way; and that he speaks of its use, in that form, merely as greatly benefiting, not as curing the disease. Another passage from the same work runs thus: "At the first appearance of dropsy of the eye, many surgeons recommend mercurials, and

cicuta ; astrigent collyria ; a seton in the nape of the neck, and compression of the eye. However, Scarpa has never yet met with a single well-detailed history of a dropsy of the eye cured by these means." Upon this passage I have only to observe, that, such as my researches on the subject have been, they support Scarpa's assertion so strongly, that I feel no hesitation whatever in asserting, that the present is the only authentic instance in which the disease has been completely cured by mercury, paracentesis, or any other means, single or combined. Indeed Jourdan, in his article on this disease in the *Dictionnaire des Sciences Médicales*, after mentioning paracentesis, emetics, diuretics, and mercurial preparations, says, "*Mais il serait difficile de trouver une seule observation digne de foi, constatant l'efficacité de ces divers moyens.*" Such being the actual state of the facts, it is manifest that the unexampled success of mercury in this case is owing to its having been employed, not as a diuretic, but as a sialagogue, and so as to bring the whole system, and consequently the eyeball, strongly under its influence.

5. It will be observed, in this case, that vision commenced to improve, and the size of the eye to diminish, from the moment that ptyalism had been fully established. These circumstances cause me to regret that I did not produce that effect more rapidly, by giving the pills of calomel and opium every third hour, instead of thrice in the day. Had I done so, I am convinced that the cure of the disease would have been considerably expedited.

6. The use of mercury to ptyalism has enabled me to dispense with the aid of leeches in cases of morbus coxæ, iritis, and other affections ; but my observation of the effects of their free application in this case, convinces me that they greatly assisted the action of mercury.

7. This case confirms the general observation, that hydrophthalmia affects but one eye, and is always slow in its progress. It also shows that the disease is not, as Beer supposes, necessa-

rily connected with either a dropsical or chlorotic state of the system, or the sudden healing or repulsion of exanthemata.

8. During nearly thirty years that I have been actively engaged in civil and military hospitals, and in private practice, I have seen and treated, and seen others treat, a great number and variety of diseases of the eye; yet this is the only genuine example of general hydrophthalmia that I recollect having seen. I have also seen very few cases of either the aqueous or the vitreous variety, and scarcely any which was not combined with a greater or less degree of either staphyloma, closure of the pupil, or loss of transparency in some of the humours. Hence I infer that the true disease, particularly its general variety, is of very rare occurrence. Jourdan is also of the same opinion. It is difficult, therefore, to reconcile his experience and mine with that of systematic and other writers on the eye, for their descriptions seem to show that the disease and all its varieties are far more common.

## II.—*Case of Retinitis.*

Admitted, under my care, into the Richmond Hospital, December 24th, 1839, Bridget Johnston, aged 28, a servant. She has been for the last four months out of employment, being previously in comfortable circumstances. Three weeks since, the greater portion of her clothing having been taken away, amongst which were her shoes and stockings, she thus caught cold, and was almost immediately seized with shiverings, headach, pains in every part of the body; amongst these were violent darting circumorbital pains, and pains in the balls of both eyes, which were always worse at night, the change commencing about two or three o'clock in the afternoon, and, from this time, continuing very severe till morning, when a remission would occur. Accompanying these symptoms, were frequent flashes of light and sparks of fire crossing, and midges or motes continually flying before her eyes; occasionally, too, red globes and small balls of fire would appear at a very short

distance from her bed, or wherever she was seated. At night, the light of a candle would assume a variety of colours; green, blue, redder than natural, approaching to a deep scarlet or crimson hue, and by times an intermixture of the first three. Coexisting with these sensations, the principal annoyance was produced by a feeling of sand, or small gritty bodies, interposed between the eyes and eyelids, and a copious flow of scalding tears. In consequence of no treatment being adopted, her sight daily and gradually became shorter, weaker, and more imperfect, and the sensations above described became every day worse and more distressing.

Two days before admission, her vision became so totally obscured, that she was unable to distinguish persons, as far as features or particulars were concerned; but, at night, persons seemed to her as large black objects moving about; the intolerance of light was at this time extreme, being obliged to keep the eyelids closed the greater part of the day, and the flow of scalding tears was much more copious. In this state she was brought into hospital, unable to see her way, or discern one object from another, and complaining of the sensation of two balls of fire constantly placed directly opposite the pupils, and to which she attributes her inability to see other things.

On admission, both pupils were dilated as much as could be imagined, scarcely a line of the iris being visible; the stimulus of light, however strong, seemed to produce no contraction, the pupil and iris of each eye being insensible to its effects. No prominence or enlargement of the balls was apparent; the lens and all the humours were perfectly transparent, but, on looking into the bottom of each eye, a very distinct glaucomatous, or rather sea-green, appearance presented itself. She asserts, that even the faces of those who examined her eyes are all but invisible; and that the difference between day and night is made known to her by the increased general distress, and flow of tears, induced by the former. Twelve leeches have been applied to the



eyelids, from time to time, and calomel with opium given. Since then there has been a daily amendment, the symptoms not being so acute ; but the improvement has not been, as yet, so marked as this morning, 27th. The intolerance of light has in a great measure subsided, a pretty strong degree of it being borne without increased distress ; the sandy, or gritty, sensation has gone away ; the globes of fire no longer obstruct the vision, she being able to see tolerably far, and mark the difference in the features, and discern even small-sized objects at some distance from the bed ; the supra-orbital pains are less ; sometimes in the day, they dart from temple to temple ; the pupil is not so much dilated ; the iris contracts and dilates when exposed to the action of light ; when not subjected to the full force of this stimulus, the pupil is dilated to one-half or three-fourths more than its natural size, the iris itself appearing perfectly healthy ; the blood-vessels are less numerous, more prevalent on right than left ; an opaque, greenish or glassy appearance is still seen in the bottom of the eyes, not unlike that seen in some cases of amaurosis ; general health good ; sleeps better now. The application of leeches to the eyelids, and the pills of calomel and opium to be continued.

28th. No leeches could be procured ; the pain shooting from one side of the head to the other, across the eyebrows, is exceedingly severe ; the left eye appears more inflamed, the conjunctiva being very vascular ; the secretion of tears more abundant ; the irritability increased, and sandy sensation more annoying ; vision, however, has not undergone any change for the worse ; the mercury is beginning to take effect ; copperish taste in mouth ; slight sponginess of gums, with an unusual flow of saliva ; pulse of natural frequency ; digestive functions regular. Leeches and pills repeated.

29th. Her sight is considerably improved ; much stronger than heretofore ; so much so that she can see double or treble the distance, and even tell the characters of different letters of middle-sized print, though unable to read the words off at once.

The leeches were not applied till yesterday ; instant relief from the new inflammatory symptoms was experienced ; the sea-green appearance visible in the bottom of both eyes has almost disappeared, there being now nothing obvious except what is generally seen in healthy eyes ; the same remark applies very nearly to the pupil and iris ; conjunctivitis of the left eye also is less. Repeat the leeches and pills. Two small blisters to be applied over each supercilium.

30th. The mouth is more decidedly affected than noted on the 28th ; she reports that her vision is nearly as good as ever, excepting a degree of weakness, when exposed to a strong light, or induced by looking on the same object for any length of time ; her sight reaches to a comparatively great distance, enabling her to observe trees, and other objects, three or four hundred yards from the ward ; this day, which is gloomy, is particularly favourable to her sight, and all the unpleasant symptoms noted on previous days have subsided in a great measure. Same treatment continued.

January 4th. Profuse salivation took place two days ago, since when the improvement has been progressive; the functions of both eyes may now be said to be performed in a perfect manner ; no return of supra-orbital pains ; slight irritability of the right eye exists.

R. Emulsionis Arabicæ uncias quatuor.

Olei Terebinthinæ Purissimi unciam.

— Olivæ uncias tres.

M. Sumat hujusce misturæ cochlearia duo ampla ter in die.

6th. Convalescent.

Discharged cured on the 14th of January, 1840.

*Observations.*—1. In this case, the appearances, symptoms, and sensations are precisely those which characterize retinitis, while those which were absent show, that the retina was the only tissue, in either eye, that was affected. The case is, therefore, one of pure, uncomplicated retinitis, which I believe to be

of rare occurrence. The circumstance of the disease attacking both eyes at once, also appears to me to be uncommon.

2. Speaking of the effects of mercury in this disease, Mr. Travers expresses himself thus: "I have," he says, "been witness to its power, in suddenly arresting the disease, in too many instances, not to entertain a far higher opinion of it than any other article of the *materia medica*."\* If ever Mr. Travers's opinion was strongly borne out, it is borne out by this case; for although general bleeding, so generally had recourse to in such cases, was not employed, yet the almost unaided powers of mercury proved themselves fully equal to the removal of the disease, and the perfect restoration of vision.

ART. XIV.—*Observations on the Use of Nitrate of Silver in some Affections of the Mucous Membranes.* By ALFRED HUDSON, M. B., Physician to the Navan Fever Hospital.

SINCE Dr. James Johnson directed the attention of the Profession to the effects of small doses of nitrate of silver, in cases of morbid sensibility of the stomach, it has probably been more generally employed than from most books we might be led to suppose, few medical writers having dwelt much upon its use in any disease except epilepsy, though several have in a cursory manner noticed its beneficial effect in different morbid states of the stomach.

Thus Dr. Osborne† assigns it an useful adjuvant action, as an astringent in gastralgia, with sour vomiting. Mr. Langston Parker‡ classes it with morphia and bismuth as a *sedative* in ulceration of the stomach. Dr. Bigger§ gives us the testi-

\* A Synopsis of the Diseases of the Eye. 2nd edition, p. 311.

† See Dr. Osborne's Propositions, Dublin Journal, vol. vii.

‡ On Ulceration of the Stomach, Medico-Chirurgical Review, vol. ix. (new series,) p. 652.

§ Gleanings, Dublin Journal, vol. xii.