

with the apparatuses of induction, but these prejudices will also, I am sure, disappear in time. Whether the apparatus be constructed by Duchenne, Legendre, or any other, seems to be a matter of slight importance. The preference, however, will be given to an apparatus possessing the above required qualities, and being at the same time cheap and easily transportable.

(To be concluded.)

THE SPECULUM OCULI, OR OPHTHALMOSCOPE:

ITS VALUE AS A DIAGNOSTIC AID IN THE EXPLORATION
OF CERTAIN OBSCURE FORMS OF DISEASE
AFFECTING THE EYE.

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In an able article on the ophthalmoscope in the *Medico-Chirurgical Review* (April, 1855),* the advantages which have been already derived from the use of this instrument are summed up as follows:—

“1st. The possibility of detecting the slightest impediment to the passage of light through the lens.

2nd. Of seeing the reason of the frequent unsatisfactory result of the tearing through of membranes occluding the pupil.

3rd. The advantage of being able, in many cases, to see (through the cataractous lens) the state of parts behind it: as the vitreous humour, whether healthy or abnormal; retina, whether detached, &c.

4th. In the uncertain indications of the external symptoms, we have the certainty of not mistaking an anæmic for a congested condition of the internal tissues.

5th. The advantage of not treating a patient who is amaurotic from a detached state of the retina, with too energetic medicines.”

In the forcible words of Mr. Dixon:—“A view of the fundus of an eye overspread with old coagula; of a retina detached from the choroid by effusion of serum, and undulating with each movement of the globe; of an atrophied optic papilla; of a vitreous humour filled with opaque filaments and corpuscles: these, and other palpable signs of disorganization, will force the most devoted believer in the omnipotence of mercury to dethrone his idol.”

A friend, who has lately returned from the metropolis of France, tells me that the ophthalmoscope there enjoys the highest reputation in the hands of the most eminent of our profession. Both Demarres and Sichel place great reliance upon its value as a diagnostic aid. The next case that I submit acquires additional interest from its having been seen by the latter able surgeon, whose written account of the changes observed by him perfectly coincide with a description previously given by myself to the patient.

Amblyopia: insensibility of the right retina.—J. G—, having resided at Monsooke several years, much exposed to the changes of climate peculiar to the interior of Africa, found, about fourteen months from this date, (July 1st, 1855,) that the sight of the right eye was gone. The only indication of the disease affecting the eye was a slight granular state of the palpebral conjunctiva. Like most persons residing in hot climates, he suffered much from an old liver complaint, and at times with bleeding piles. This evidently exerted considerable influence over the eye affection: he found, when suffering from a “liver attack” or piles, the left eye was much weakened, and sight very dim indeed. The ophthalmoscope discloses effusion to some extent under, at least, a portion of the retina, that membrane being in part raised and detached; it is also opaque and abnormally vascular; the vessels of the retina are large, or rather dilated; the papilla of optic nerve cannot be seen.

This gentleman had submitted himself to active treatment, under the advice of medical men, both in his own country, and on his way to this, remaining for a time in Italy for the express purpose. No good had resulted therefrom, and when I saw him he was suffering from debility, and was very nervous from fear of total blindness. I decided first to improve his general health, and accordingly ordered him a generous diet with tonics. In a fortnight, very small doses of the biniodide of mercury were added, and continued with benefit. During the month of August, he was obliged to go to Paris on important business,

and there a friend persuaded him to consult Sichel. Upon his return to London, he called upon me, stating what he had done, at the same time showing me the opinion and prescription obtained. He said he became much alarmed when the application of leeches was insisted upon by Sichel, for this reason, that on a former occasion when leeches were prescribed, his sight in the left eye was made worse by them. He therefore decided to continue my treatment, from which he had been deriving some benefit.

The treatment recommended by Sichel to this patient is somewhat novel. I am therefore tempted to subjoin it for those who feel an interest in knowing how such an authority would have treated this case.

After having very carefully examined the eyes with the ophthalmoscope, and giving almost the same description of the changes in the various tissues of the eye as above, Sichel directs the patient to apply twelve leeches before the right ear; on the following day to be purged with two glasses of citrate of magnesia; after which, to make four applications daily on the forehead and right temple with a bit, as big as a small bean, of Neapolitan ointment.* On the third day, four leeches to be applied to the anus, to take, night and morning, one of the following powders: calomel, ten cent.; golden sulphuret of antimony, five cent.; carbonate of magnesia, fifty cent.: mix, and divide into ten powders or packets. After three days, suspend these medicines, and substitute the copper pomade (*Paris Pharmacopœia*) for the Neapolitan ointment, and take fasting every morning, in a little coffee, cream of tartar, fifteen gram.; carbonate of magnesia, ten gram.: after eight days, return to the use of the Neapolitan ointment and calomel powders, which finish. When these are all gone, take every second day the cream of tartar and magnesia powder as before. On the alternate days take of barium drops, as described in the *Paris Pharmacopœia* (No. 1, *du 8 Août*). When the pomade Neapolitan is finished, again use several pots of the copper pomade. From time to time suspend the cream of tartar and magnesia powders, and take, morning and night, for eight days, half of one of the following powders:—precipitated sulphur and cream of tartar, of each five gram.; sugar of lemon, ten gram.: mix, and divide into twenty packets. Take three times, at intervals of ten days, the citrate of magnesia purgative; and the next day apply six leeches to the anus, unless the piles should have been bleeding considerably. From time to time substitute the sulphur and cream of tartar powders; and take also from two to four of the following pills:—gum ammoniacum and sulphate of potash, of each three gram.; Barbadoes aloes, one gram.: mix, and divide into fifty pills. After having used three pots of the copper pomade, commence bathing the eye five or six times a day with the following collyrium, at first diluted with water, let fall a drop between the eyelids:—distilled water, one hundred gram.; cherry laurel water, five gram.; borax, one gram.; quince mucilage, ten gram.: mix. Subsequently, employ the following collyrium in the same way as directed before: distilled water, ten gram.; sulphate of zinc, five cent.: dissolve. Try two or three phial bottles of it; and, when it is well borne, continue the use of it twice a week, night and morning. Suspend its use at night, and put a drop of the following into the eye: distilled water, ten gram.; sulphate of copper, ten cent.: dissolve.

The diet must be mild and moderately nourishing; no liquors, no pure wine, no coffee without milk; the same proportion of vegetables as of meat and bread. When exposed to a strong light, to wear tinted spectacles, not too near the eyes; work as little as possible; use the eyes upon distant objects, or objects partially illuminated; do not work upon small objects, or try to read small type; remove the object as far from the eyes as possible, and every few minutes look from it to the distance. If the mouth has not been affected by the use of the Neapolitan ointment and calomel, return to it after having left it off for three or four weeks. Continue the other treatment a long time, and after three months apply with a brush some blistering spirit, or a small blister about the size of a two-franc piece, to the right side of the neck and ear alternately. Let one heal up before the other is applied; after the first blister, purge again, and continue the treatment a week; then apply five or six small flying blisters to the right temple.

Partial insensibility of retina, with exposed patches in choroid. (See Fig. 3 in THE LANCET, May 9th.)—S. E—, aged twenty-seven, schoolmaster, admitted July 2nd, 1855. Gradual dimness of sight came on in both eyes, so much so, that since May last, he has been obliged to resort to strong magnifying glasses,

* On the Means of Diagnosing the Internal Diseases of the Eye. By C. Bader, M.D., and B. Roberts, Esq.

* This ointment is a preparation of mercury, corresponding to our mild mercurial ointment, and the therapeutic effect is somewhat the same.

which have barely enabled him to continue his duties. He is a nervous man, and suffers much from a fear he has of losing his sight. Has been much troubled with headache and constipation of bowels; candle-light distresses him very much, and he is compelled to discontinue reading at night. Pupils dilated; but with this exception there is nothing that would indicate the existence of any disease. The ophthalmoscope shows the dioptic apparatus is perfectly clear; fundus of eyes very pale and red in colour, with a few white patches in choroid. There is a pink cloud hanging as it were before the optic nerves, which partially obscure the retina; the periphery of optic nerves, at upper two-thirds, presents an irregular margin. Ordered, blue pill, two grains; extract of hyoscyamus, one grain; compound Galbanum pill, six grains, every night.

July 12th.—Improving; bowels sluggish. Continue pills, and take also, sulphate of magnesia, one ounce; dilute sulphuric acid, two drachms; infusion of calumba, twelve ounces, one ounce three times a day. The cornea at this times appeared to be more convex than normal; he was therefore recommended to assist the sight with a pair of No. 2 concave spectacles, and continue his medicine.

30th.—Much better; thinks he can see nearly as well as ever. Has permission to go the country. Discharged, cured.

E. V.—, aged thirty-one, admitted July 8th, 1855, states that in his left eye he has three or four deep-brown scales, with one much larger than the rest. They are enclosed in circles by day, and at night resemble spots and a network with blood, also occasionally long streams of light greatly interfere with his sight. He supposes the disease to have arisen from a blow on the temple seventeen years ago, for which cupping, leeching, and salivating, were resorted to without much benefit. The ophthalmoscope shows the retinoid vessels to be in a congested state in the left eye, giving off a circular zone of vessels, nearly rendering obscure the entrance of the optic nerve. In the right eye, there is less congestion, but a great many vessels cross the entrance of the optic nerve, which are the cause of the web-like appearance of which the patient complains. Small doses of biniodide of mercury in infusion of quassia it was deemed advisable to prescribe. To attend as an out-patient.

August 8th.—Not attended for some time, but has continued to take the mixture; eyes then showing signs of improvement. The medicine was taken regularly for three months, at which time he was enabled to return to his employment, expressing himself satisfied with the benefit already received. I again examined his eyes, when the congestion appeared much less than before, and the entrance of the optic nerve, with its vessels, appeared clearer and in a nearly normal condition.

J. M.—, a porter, aged forty-two, applied for advice on the 20th of June, 1855. The history he gave of his disease was, that about Christmas, 1854, he first noticed a dimness of sight in the left eye; shortly afterwards he was attacked with rheumatism, and became an inmate of one of our general hospitals. He was soon cured of the latter disease, but his sight remained unchanged, and, continuing to grow worse, he then applied for admission to the Royal Westminster Ophthalmic Hospital.

There being no outward signs of disease, an examination was made with the ophthalmoscope. In the left eye the whole fundus was of a very pale pink colour, and the vessels of the retina were obscured by a greyish web; the lens and vitreous perfectly clear. In the right eye the lens was split up into segments, but the divisional markings were so faint as not to be seen without the aid of the convex lens; the fundus was of a pale colour, and the vessels, as far as they could be made out, were small. His general health was not good; it was therefore thought desirable, to try a tonic plan of treatment, and this was followed by the best possible result. The sight of the eye was much improved at the end of three weeks. I believe the opacity of the lens in the right had slightly increased; nevertheless, in this case the cataractous disease had been entirely overlooked, and said not to exist.

CASE.—H. S.—, aged fifty-two, a waiter, applied July 11th, 1855, suffering from loss of sensibility in retina. He stated that about Christmas last his sight began to fail, and is now so imperfect that he cannot follow his occupation, which is chiefly night work in a tavern. He was advised to apply, about a month ago, to a female oculist, who told him the optic nerve was diseased, and nothing could be done to stop its progress. She afterwards said a cataract was forming, and put a drop into his eye, which was much worse after it. This patient, a small thin man, a widower, having several children to support, is suffering much from anxiety, his means of subsistence being very precarious; he has a distressed

and anxious aspect. Pulse low. No subjective sign of the diseased condition, except dull and sluggish state of irides.

Examined by ophthalmoscope.—An anæmic condition of the vessels of retina, which are of a faint pink colour, remarkably small and pale, exposing a large portion of a very white papilla optica. The dioptic media perfectly clear and free from disease. Assuring him that no great amount of disease could be detected, and that he might soon expect to be cured; the compound iron mixture was prescribed. His general health improved rapidly, and in a month he was quite well. I need scarcely add that the anæmic condition of the eye, with impaired vision, was induced by overwork, anxiety, and an insufficient diet.

J. C.—, aged thirty-eight, shoemaker, admitted Aug. 16th, 1855. Sight dim for the last three years; left eye particularly so. At present cannot read large print; suffers from bilious headaches and heaviness over the brow, for which he has often been under the care of a medical man; “never had very good health;” is married; smokes a good deal; eyes rather heavy and full, with great desire to sleep. Two days ago found the sight of the left eye nearly gone. Ophthalmoscope shows congestion of the choroid; vessels of retina large and loaded; entrance of optic nerve in the left eye nearly covered by a dark spot, which extends to foramen centrale; lens and other structures perfectly transparent, and seemingly healthy. To be cupped at nape of neck, and to take a three-grain blue-pill, with two grains of extract of hyoscyamus, every night; aperient draught every morning. The dose was continued for a week, and a mustard plaster every night to the nape of the neck. This treatment had the effect of removing so much of the congestion that it was then deemed desirable to order him to take two pills, every other night, containing blue-pill, three grains, compound Galbanum-pill, five grains; with compound rhubarb draught, in infusion of calumba, twice a day. This he continued up to the 10th of September, when he appeared so much better in every respect that he was able to resume his business.

E. B.—, aged twenty-nine, domestic servant, admitted September 6th, 1855. Congestion of the choroid and vessels of the retina. This patient was of a bilio-nervous temperament; and both pupils were rather contracted: slight ptosis, and quivering of left superior palpebræ. Her sight has been affected for six or seven years—at times more so than at others; the quivering of the eyelid began only a few months since; not subject to headache, but occasionally has shooting pains through the temples; feels a great weight in the eyes, and is giddy on rising from a stooping posture. Catamenia small in quantity; appetite bad; pulse weak, soft, under 70.

Examined with ophthalmoscope.—Considerable congestion of the choroid and vessels of the retina, forming a complete network over the entrance of the optic nerve, leaving only a pin's point bare. Ordered sulphate of magnesia, half an ounce; sulphate of iron, twelve grains; dilute sulphuric acid, two drachms; infusion of quassia, twelve ounces, one ounce to be taken three times a day. Blue-pill, two grains; compound Galbanum-pill, four grains; extract of hyoscyamus, one grain, two pills to be taken at night. Cantharides plaster to nape of neck.

October 1st.—This patient having steadily persevered with the iron remedy—blisters repeated occasionally—presented herself at this date with nearly all the symptoms subsided, and her sight gradually improving.

J. B.—, aged thirty-four, a clerk, admitted Sept 6th, 1855. First noticed a reflection of evening gas-light in church; saw two distinct rows about a quarter of a yard from each other. Upon further effort found he could not see to read with the left eye; there was a kind of mist immediately on the spot he looked at, and the lines, instead of appearing straight, were zigzag, and every upright object diverged from the perpendicular to the right; thus the sight became gradually more and more indistinct, until at last he could not discern any object.

Examined with ophthalmoscope.—Exudation into retina, the central vessels nearly obscured by an apparently overhanging cloud or web. Ordered, blue-pill, five grains, at night, and sulphate of magnesia, half an ounce, in the morning, which treatment was occasionally discontinued and then resumed.

On the 20th of October he says: “I can now see a considerable distance, but every object seems in two places, the one not so distinct as the other. I cannot yet see to read other than very large print; for instance, the heading of a newspaper: the lines are, however, much straighter than formerly.” At the end of the month he found himself, by a steady continuance of this plan of treatment, so much improved as to be able to return to his duty.

Gower-street, Bedford-square, 1857.