On the postfebrile ophthalmitis / by Andrew Anderson.

ON THE

POSTFEBRILE OPHTHALMITIS.

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INTRODUCTORY OBSERVATIONS.

In the *Medical Gazette* for October 1843, there appeared, from the pen of Dr Mackenzie, a paper descriptive of a peculiar form of ophthalmia, consequent on the fever then epidemic in Glasgow. This "Postfebrile Ophthalmitis" had been noticed to occur in Dublin in 1826; but nowhere does it seem to have been so prevalent as in Glasgow during the past years. The disease had not reached its height when Dr Mackenzie published his account of it;—it has now disappeared; and though I do not hope to add much that is of importance to his short and comprehensive notice, I yet think that it may be useful to supply the statistics, which, from the date of his writing, he could not give; and to draw up from my notes of the cases which I have treated, a summary of all the symptoms and lesions that I have observed; and these, I venture to say, will be found somewhat interesting.

PART I.—GENERAL HISTORY OF THE DISEASE.

1. *Mode of Onset.*—The postfebrile ophthalmitis is, as we shall see in the sequel, of specific nature, bordering on the rheumatic and arthritic ophthalmiæ, and having much analogy to those general inflammations of the eye which are found to follow typhus and puerperal fever. The purulent, the syphilitic, and the scrofulous opthalmiæ lie further off; and yet there are cases in which the postfebrile affection shades into these.

Of the precedent fever, I shall not say one word, referring simply to those numerous descriptions of it which have lately appeared; and in particular to those by my friends Dr Cormack and Dr Halliday Douglas.[1] It will be recollected, that one great characteristic of

[1] Cormack's Treatise, 8vo. London: 1843;—and H. Douglas, in Northern Journal of Medicine, 1845.

this fever was the almost invariable occurrence of one or more relapses: now, of 114 cases of the ophthalmia, the disease followed

The first attack of the fever in	13	
The first relapse in	75	
The second relapse in	25	(Case 48.)
The third relapse in	1	
	114	

There was not always an interval of time between the end of the fever and the onset of the ophthalmia, and that which usually occurred was of very various length: Thus, of 135 cases, the symptoms (amaurotic or inflammatory) of the affection of the eyes began

During the fever or relapse in	10	(Case 27.)
At once upon the convalescence in	34	
Within a fortnight of the convalescence in	29	
Within the following month in	31	
Within the next 5 or 6 months in	31	(Case 22.)
	135	

The last mentioned is the longest period that I have known to elapse; and it is plain, that the sequela most frequently occurs immediately upon, or very shortly after, the cessation of the fever.

The following is the order of the symptoms in the 10 cases in which the disease of the eye began before convalescence from the fever:—

1. Case 9. It began at the outset of the fever with ocular pain, and gradually increasing amaurosis.
2. Case 13. The eye was weak from the beginning of the fever—amaurosis followed.
3. Case 56. Amaurosis during the fever; inflammation afterwards.
4. Case 27. Amaurosis during the relapse.
5. Muscæ since premature labour in relapse.
6. Pain in relapse; scarcely any amaurosis.
7. Amaurosis after first relapse; pain after second.
8. Amaurosis during the fever, disappearing; inflammation after the relapse.
9. Inflammation during the fever, disappearing in eight days, but returning in a month.
10. Inflammation between fever and relapse.

The most frequently observed course of the symptoms is as follows: Usually, at a variable time after recovery from the fever, the patient begins to complain of the presence of muscæ volitantes, or sometimes of more or less general obscurity, before the eye; and after some time, the organ becomes inflamed. The amaurosis now increases, while the muscæ are no longer discerned; and the blindness may be so great, that there remains merely the perception of light and shade. There is no observable part of the eye which I have not seen altered by the disease; and permanent deformity of the eye-ball, with total blindness, may ensue. (Cases 3, 4.) During the cure the muscæ are again perceived as the amaurosis abates, and they often persist with extreme obstinacy.

This progression of symptoms is, however, far from being uniformly observed; and as we trace the history of the disease, we shall find the greatest variety in their accession and continuance

Thus, of 108 consecutive cases of which I took careful note, there was

Amaurosis without inflammation in	8
Inflammation without amaurosis in	5
Pain occasionally only in	2
The amaurosis and pain began together in	13
The amaurosis followed the pain in	8
The pain followed the amaurosis in	72
	108

Of the 72 cases coming under the last head, the pain followed the amaurosis

Within a day, in	3
Within the week following, in	24
Within the month after this, in	20
Within the subsequent half-year, in	25
	72

The longest period which I have noticed to elapse is eleven months. (Case 14.) In two cases (Case 61) the amaurosis has already lasted a year and a half without any inflammation taking place. The result of my observations does not then agree with that deduced by Mr Wallace from his study of the disease in Dublin (*Med. Chir. Trans.* xiv.); for, says he, "it is to be particularly observed, that I have never seen a case in which, upon strict inquiry, amaurotic symptoms, more or less strongly marked, have not preceded the inflammatory symptoms. This is in fact one of the most remarkable characters of the disease." In two-thirds only of the above 108 cases did this rule hold good.

2. *Statistics.*—From August 1843, when the first case occurred, to February 1845, exactly 265 patients suffering under the disease in question presented themselves at the Glasgow Eye Infirmary. It is interesting to compare the rise, progress, and decline of the epidemic itself, as taken from the books of the Glasgow Fever Hospital, with those of its sequela; and from the following table it will be seen that the latter followed the fever at an interval of about five months.

During the quarter now ended, (May 1845), no cases have been admitted: the disease may therefore fairly be thought concluded; and it will be seen that the peculiar epidemic fever broke out in March 1843,—the ophthalmitis first appeared in August:—the fever culminated in July,—the ophthalmitis in December and January. The fever disappeared in June 1844, and the opthalmitis, setting aside a few sporadic cases, ceased in October of the same year.

	Fever Cases.
January 1843	100
February	99
March	155
April	231
May	374
June	331
July	489

	Fever Cases.	Cases of Ophthalmitis.	
August	427	5	
September	354	8	36 Dr Mackenzie.
October	435	23	
November	266	34	
December	292	40	120 Dr Anderson.
January 1844	224	46	
February	156	23	
March	140	24	69 Dr Mackenzie.
April	132	22	
May	126	15	
June	111	6	29 Dr Anderson.
July	82	8	
August	93	3	
September	66	3	6 Dr Mackenzie.
October	32	0	
November	81	0	
December	67	1	5 Dr Anderson.
January 1845	...	4	
		265	

The following table comprises, besides the cases included above, one which occurred to me in private, and fifteen, the notes of which have been kindly handed me by Dr A. M. Adams, in whose district they occurred.

Age.	Males.	Females.	Total.	
Under 10 years	5	7	12	
Above 9 and under 20	40	57	97	193
„ 19 „ 30	35	49	84	
„ 29 „ 40	28	16	44	
„ 39 „ 50	15	10	25	
„ 49 „ 60	8	5	13	87
„ 59 „ 70	2	0	2	
Age not recorded ...	0	3	3	
	133	147	280	

Of the 30 cases recorded by Dr Jacob (*Trans. of the Association, &c.* v. 294), three only of the patients were above 25 years old.

3. *Eye affected.*

The right alone in	115 cases.
The left alone in	111
Both in	54
	280

These numbers differ very much from those given by Mr Wallace who agrees with me in finding, that the sexes are nearly equally liable to the disease; but states that of 40 cases, there were but in which the left eye alone was affected, and only two in which both were engaged.

It may be interesting to record the way in which the symptoms advanced, in the patients under my care, in whom both eyes were diseased. There occurred

Amaurosis of both eyes at once, in	1	
Ditto, with cataractous opacity, in	1	(Case 27.)
Inflammation of both eyes at once, in	4	(12.)
Ditto, consecutively, in	2	(28, 6.)
Amaurosis of both, inflammation of one, in	5	

Ditto with restoration of sight to one eye when the other became inflamed,	2	
Inflammation of both, spontaneous recovery of one,	1	(23.)
Catarrh of both, inflammation of one,	1	
Inflammation of one eye during the treatment of the other,	4	(48, 32.)
Ditto, after the cure of the other,	6	(20, 60.)
Ditto, after the loss of the other,	1	(3.)
Amaurosis of left eye, disappearing when the sight of the right eye became dim three weeks after. The restoration of the right eye two months subsequently, being followed in three weeks by inflammation of the left,	1	(52.)
Inflammation of one eye, followed by amaurosis of both,	1	(11.)

In the case of one woman, fever occurred in July 1843, and was followed by ophthalmitis of the left eye, for which she was admitted under Dr Mackenzie in September; early in October, she had a second attack of fever; and in March 1844, was again admitted, labouring under postfebrile inflammation of the right eye; the left having recovered.

4. *Exciting cause.*—In most cases, the first attack was, as Dr Mackenzie notices, attributed to exposure to cold, (Cases 46, 55), and that even in some of the cases in which it took place before convalescence from the fever. In a few instances the first, or amaurotic symptoms, seemed to arise spontaneously, and the subsequent inflammation to be owing to cold; while in one or two the first exposure brought on the amaurosis, and a subsequent one the inflammation. In one case the inflammation followed the receipt of an injury, but presented all the characters proper to the postfebrile ophthalmitis.

I shall now proceed to detail the symptoms, in connexion with the organic lesions which the eye has been observed to present; and notice what seem to be their pathological relations.

PART II.—PHENOMENA OF THE DISEASE.

Div. I.—*Affections of the Mucous Membrane.*

A.—*Ophthalmia Catarrhalis.*—In some cases the postfebrile approaches very nearly to simple catarrhal inflammation, being distinguished only by slight occasional supra-orbital pain—vision being perfect,—and the ordinary treatment by purgatives and astringent collyria being sufficient to effect a cure.

B.—*Ophthalmia purulenta.*—In two children the disease took this form; and was treated and cured accordingly. (Case 5.)

C.—*Ophthalmia scrofulosa.*—In one instance (Case 6,) pure ophthalmia scrofulosa followed the fever; in others, in which the patient had formerly suffered from the strumous disease, there seemed a combination of this with the proper postfebrile affection. (Cases 7, 8, 39.)

D.—There was sometimes considerable *tarsal irritation* (Cases 55, 14); which also occasionally occurred in scrofulous persons, on the cure of the more deeply seated disease.

E.—In most cases, the conjunctival inflammation was merely

secondary; in few was it altogether absent; but was more or less intense, without any constant relation to the more deeply seated disease. The vascularity around the cornea was sometimes merely conjunctival; and I have seen the conjunctiva vascular *except* in the zone around the cornea. In a few instances, while there was deep sclerotic injection, the conjunctiva was bloodless. The injected vessels may stop abruptly at the edge of the cornea, forming an elevated margin, (Case 57,) when the grey peripheral ring which Jones and others have described is also usually seen. More commonly the vessels shoot into the corneal conjunctiva, and fill this semitransparent ring with their fine converging twigs. The conjunctiva corneæ is rarely further affected, and that chiefly in the cases which partake of a scrofulous character, (Case 9), when the disease much resembles the untractable strumous corneo-iritis.

Belladonna, used internally and externally, seldom fails to afford relief from the irritation and epiphora which these lesions cause; and it may be freely employed in the presence of the internal ophthalmitis, which often forbids the application of stimulating collyria.

Div. II.—*Affections of the Fibrous Membrane.*

These produce the most prominent symptoms; the amaurosis being in fact often neglected by the patient, till the access of sclerotitis, with its intense ocular and circumorbital pain, forces him to seek relief.

§ I. *Of the Sclerotic.*

This membrane is in the great majority of instances inflamed, when we find the usual radiating redness, and pain more or less severe.

A.—*The Redness.*—In a few cases there was no vascularity, even after the pain had come on; and in one, (Case 10), deeply-seated opacity in the eye, and almost total blindness occurred, without any injection at all. As a general rule, the amount of sclerotic redness is in proportion to the degree of internal inflammation;—and I have often seen the cornea surrounded by a broad band of a dingy pink colour, in some of those cases in which the vitreous body had suffered; this redness is much less bright than that of common catarrho-rheumatic ophthalmia. In other cases, the larger vessels of the sclerotic are distended with blood, (Case 16,) and sometimes when, the acute stage being over, the inflammation has become more or less asthenic, they are found turgid from passive congestion (Cases 18, 35,) so as to contrast well with the bright red of the conjunctival network.

B.—*The Pain.*—This is usually present during the acute stage and is commonly increased at night, though in a few cases (Case 60) it was most severe in the day-time. In one instance, it came on periodically, in the morning and evening, (Case 12.) Pain may occur when there is no objective symptom whatever, or may be absent even while the iris is forming adhesions to the capsule of the

lens. Circumorbital pain and hemicrania are usual forms when the pain is severe; but the part most commonly complained of is the upper half of the eyeball, which is ordinarily more or less acutely tender, and sometimes more vascular than the rest of the eye. The pain may disappear spontaneously, even while the disease is making progress.

§ II.—*Of the Cornea.*

A.—*Corneitis Scrofulosa.*—This occurs after fever in circumstances similar to those in which I have noticed strumous conjunctivitis to present itself. I have seen it several times in boys; in one of whom the whole of each cornea, except one opaque point in the centre, became intensely red.

B.—*Simple Corneitis.*—I saw in three or four cases; though in many of the severest the cornea remained clear; in one it became deformed and prominent; in two, after the inflammation disappeared, it was found contracted and shrunken (Cases 3, 4); in a few cases (8, 32, 40,) there was opacity seemingly of its proper fibrous substance.

C. *Ulcers.*—It will be evident from the above description, that many of the cases bore a strong resemblance to those of catarrho-rheumatic ophthalmia; the great point of diagnosis being, according to Dr Mackenzie, that the proper membrane of the cornea is frequently ulcerated in the latter, in the former never. Two of my cases form an exception to this general statement; in one of these (Case 13), the ulcer was almost the only lesion which existed on admission; in the other (Case 14), there were, besides acute general inflammation of the eye, two ulcers near the edge of the cornea.

D.—*Onyx* and *sloughing* of the cornea took place twice. In the first case the patient, a man aged 40, was not seen till the cornea had given way; in the other, (Case 15), the lower half of the cornea was infiltrated with pus for three days before it sloughed.

Div. III.—*Affections of the Serous Membrane.*

The aqueous membrane is often found muddy (Case 18,) and speckled with dots of lymph (17,); once I saw it marked with fine striæ, (18.) In some cases (4, 16, 18,) the aqueous humour was also turbid from the mixture of effused lymph.

I frequently observed, as did also Dr Jacob and Mr Wallace, a small opacity at the lower edge of the cornea; this sometimes seemed an effusion into its substance; but in a few cases was evidently rather a hypopion, as it changed its level with the motion of the eye. In all instances, it disappeared readily under treatment. (Cases 16, 18, 31.)

Div. IV.—*Affections of the Iris.*

Our disease is not a simple iritis; for there exists no constant relation between the degree of the inflammation and that of the amaurosis present; the retina is often almost insensible to bright light, while the appearance and motions of the iris remain quite

natural (Case 54); but we find that when inflammation does come on, the iris is usually more or less affected. Let us trace the alterations it undergoes.

§ I. *Changes in its Structure.*

A.—*Effusion of Lymph.*—The face of the iris is often dull during the inflammatory stage—an appearance which, on inspection with a lens, is seen to depend on a tomentose state of the layer of fine cellular tissue, which, according to Henle, covers the muscle. The beautiful fibrous structure of the organ is no longer perceived, while its pupillary edge has lost its sharply defined and crenated margin, in consequence of the effusion of a thin stratum of lymph around it and on the surface of the now cloudy capsule. (Cases 3, 16.) As the pupil contracts, adhesions of the iris to the capsule may result; an accident to be guarded against by the timely application of belladonna; and such adhesions I frequently met with, though none occurred to Dr Jacob. Under appropriate treatment the ring of lymph around the pupil, and the cloud in the centre, clear away, displaying the more deeply seated parts which they had previously concealed. (Cases 30, 32.)

B.—*The Colour* of the iris is observed to change as usual in inflammation; but in a somewhat peculiar way. Dr Jacob remarks that we never see it assume the yellowish green, characteristic of syphilitic iritis; and my observation confirms this statement. In some cases a blue iris becomes green—even a bright grass green; but most commonly it is only darkened, so as to assume a slate or neutral tint shade. This seems connected with congestion rather than inflammation; but even when the latter exists, and the iris is green, the colour is more or less dingy, (Case 57.) Of 22 cases in which an iris naturally blue was altered, it was darkened in 14; of 13 cases where a grey iris had its shade changed, it became greenish in 7, simply darkened in 4, dark green in 1, and brown in 1. The hazel iris is frequently darkened; and though the change of colour is of course less perceptible in a brown iris, I have still observed it in several cases; so that irides of whatever colour tend to have that shade deepened and darkened during the disease. Now and then, however, even when the natural colour is pale, it remains unchanged in the face of severe inflammation;—as in one case in which, though lymph was effused at the margin of the irregular and contracted pupil, the (light grey) iris had preserved its natural hue.

C.—In one instance (Case 9), the iris, after having under treatment resumed its healthy aspect, became again, during a period of neglect and absence from the Infirmary, affected in a more *chronic* manner. It became yellowish and sluggish, and the pupil somewhat contracted, appearances which yielded to a second and gentle course of mercury.

D.—The iris was *vascular* in one or two very severe cases, (Case 4); small specks of blood were in three instances (Cases 18, 3) observed

upon it; and in Case 4, there one day took place suddenly a considerable effusion of blood on the face of the membrane.

§ II. *Changes in its Motor Power.*

In some instances the pupil is, as Dr Mackenzie has remarked, dilated during the early (amaurotic) stage of the disease, (Cases 10, 19, 20, 57); and I have seen it large as well as insensible even when deformed by inflammation (Case 33), in which case it becomes smaller as the cure advances, (Cases 19, 57.) How far this contraction may, in Case 57, be attributable to the free use of opium in the form of Dover's powder, I cannot say.

Yet when inflammation supervenes, the pupil usually becomes more or less contracted, and yields with difficulty or not at all to belladonna, which as the disease abates acquires more power over it; but it remains smaller, less dilatable, and less lively than the opposite one for long after all other symptoms have disappeared, (Cases 21, 33, 36, 41, 47,); at last it may become natural, (Case 55.)

The pupil, again, may be lively though small during the inflammatory stage (Case 25), and this may be its character after the other symptoms have disappeared (Case 60); or it may be quite natural in size and in action during the amaurotic or even the inflammatory period, and that even when the iris is much discoloured (Case 56.) Rarely does it occur that the pupil of the affected eye is more readily influenced by belladonna than that of the opposite one. (Case 29.)

Div. V.—*Affections of the Choroid.*

We shall, in the sequel, see reason to conclude, that many of the amaurotic symptoms, and some of the diseased states of the vitreous body which are observed in the postfebrile ophthalmitis are connected with derangement of the circulation in the vascular choroid; —but as I have had no opportunity of inspecting the eye after death, I am of course not in possession of such accurate information with respect to the diseases of this membrane, as we have in regard to lesions of those parts of the organ which are visible during life. In two cases, however, the choroid was evidently diseased. The first (Case 22,) presented a choroid staphyloma, with disorganization of the eyeballs ending in atrophy; in the second (Case 23,) there existed all the characters proper to chronic sclerotico-choroiditis. The eye, however, recovered from the inflammation, although the cornea remained permanently contracted.

Div. VI.—*Affections of the Ciliary Body.*

It may well be supposed, that the iris and choroid can scarcely be congested or inflamed without the ciliary processes which lie between them being more or less involved; but, withdrawn as they are from direct observation, we are left to infer their condition from the ascertained affection of the neighbouring parts, as well as from the occasional existence of two very curious symptoms which seem,

in my opinion, to be connected with it. I mean asthenopia and myopia.

A.—*Asthenopia*, or inability to keep the eye adapted for any length of time to the vision of objects placed close to it, occurred four times among my cases, preceding, in one instance, the inflammation (Case 14). One patient complained that the effort to adapt the eye caused him pain. In another (Case 3), asthenopia occurred after the inflammation had been subdued, and the objective symptoms had nearly vanished. Three days before it was noticed, he could, by looking steadily at it, just make out small type. On the day referred to, he could read it easily, but could not continue the effort beyond a very short time. In the third case, the asthenopia occurred in the otherwise healthy eye, which could not for a minute be kept adapted to read small type. When the inflammation of the other eye yielded, this symptom disappeared.

B.—*Myopia*, or inability to see distant objects clearly, occurred in six cases, and in all of them during the subsidence of the ophthalmitis. Thus, in Case 31, the patient, on the 22d of January, could read only when the book was placed within four inches of his eye; two days afterwards, he could read easily at the ordinary distance. In Case 32, on the 20th of June, the right eye was myopic, its pupil being somewhat contracted; on the 27th, vision was possible at the natural distance, and the pupil was of its ordinary size. That the contraction of the pupil was not the cause of the shortness of sight, is proved by Case 33, in which, on the 8th of July, there was myopia of one eye, with smallness of the pupil; and yet the adaptive power of the healthy eye was not at all interfered with, by the interposition before it of a diaphragm, with an aperture of the same size as the contracted pupil. Moreover, on the 22d, when vision was perfect at the usual distance, the pupil was still small.

Can we account for the two symptoms I have just been describing? By consulting the report of Case 33, on July 8th, it will be seen, that there was no change in the consistence of the eyeball, or in the shape of the cornea, to account for the shortsightedness: and I think there can be no doubt that both this and the asthenopia observed in other cases, depended on no change of form, but simply on an impairment or loss of the healthy adaptive power of the eye.

The opinion with respect to this adaptive power which, in the present state of science, appears most likely to be true, is that which refers it to a motion forwards of the lens, when the eye is prepared to look at near objects. Valentin has shown, (*Physiologie* Band II. s. 389,) that an advance of 1-120th of an inch is enough to account for the utmost range of vision: and it seems on the whole most probable, that this change is effected by the agency of the muscular and erectile (?) tissue of the ciliary ring in which the lens is hung.

Asthenopia arises evidently from a weakness of the parts concerned

in this change, incapacitating them for continued action; and its frequently yielding under the use of strychnia shows, I think, that *muscles* are concerned; but the continuance—in the cases we are considering, of the myopia for several days proves, that some organic, though not a permanent, change must have taken place in the parts. In most cases the affected eye could distinguish objects more close at hand than the healthy one could, while by it distant objects were indistinctly seen. In one instance, however, there was only what might be called an absence of far-sightedness. The patient could not, indeed, see distant objects; but neither could he make out those placed within the limits of ordinary vision.

All these facts may, I think, be explained, by supposing the symptoms to depend upon the existence of inflammation or congestion of that part of the choroid coat which forms the ciliary processes. The occurrence of photopsia with asthenopia in Case 3, and with myopia in Cases 31, 35, favours the idea that there was vascular excitement in the deeper parts of the eye; and the pain on looking at near objects which was in one case observed, agrees with the supposition that the organ of adaptation was inflamed. The permanent alteration in the focal distance of the eye in the myopic cases might be accounted for by supposing, that the ciliary body was kept in the state suited to near vision, just as the pupil was permanently contracted. As, however, the pupil may be fixed without the presence of that state of the ciliary body which I suppose to produce myopia, so may the ciliary processes be affected while the iris is lively, as in Case 34. In the same patient, the eyeball was soft, while the myopia existed, and had become firm when that symptom disappeared; but that there is here no relation of cause and effect, becomes, I think, evident, when we reflect that laccidity of the eye would rather tend to produce presbyopia; and, besides, in Case 35, the softened eyeball had regained its firmness before the myopia occurred. It is much more probable, that both symptoms may be coincident effects of the same cause, viz. a derangement of the circulation in the choroid coat, and in the ciliary body which forms a part of it.

Div. VII.—*Affections of the Anterior Capsule and of the Lens.*

A.—*Specks on the Capsule.*—These are not unfrequently observed on the otherwise healthy membrane. I reckon two kinds of them. The first are *sooty* looking patches of *uvea* (Fig. 1.) left behind when the yet soft adhesions of the iris have been torn away by belladonna; the second are spots of a much *brighter brown* colour, and a more regular shape, being found, not merely towards the edge of the pupil, like the last mentioned, but in its very centre, (Case 2.)

B.—*Vascularity of the capsule.*—This appearance is not very rare —having occurred to me about ten times; and it also presents two distinct forms. The most common is that of the *red tag* of the iris (Case 17), which is an ordinary adhesion provided with bloodves-

sels that go to ramify more or less minutely on the capsule, sending twigs forward towards its centre, (Fig. 2). When belladonna is applied, the iris is of course found to be bound down where the vessels shoot from it into the capsule. The more rare and beautiful form is that of the regular *vascular wreath*, formed of looping vessels that pass from under the iris, and lie upon the margin of the capsule, (Case 25.) In one remarkable case (Case 24,) the pupil, rather large and irregular, seemed to the naked eye to be edged with a dark brown fringe: withdrawn by belladonna, it left the margin of the pupil clothed with beautiful looping vessels, not spreading forwards in branching masses, but forming a compact circular wreath. Under the use of mercury, the inflammation was subdued; the iris became healthy; and vision, which had been lost, was restored; but the vascular wreath, though less dense, still remained (Fig. 3.) concealed behind the edge of the pupil, and readily exposed by belladonna. In this variety then, the iris is not tagged to the capsule, and the vessels seem branches, not of those of the iris, but of those which, according to Schroeder Van der Kolk, run from the ciliary corona to supply by imbibition the anterior capsule. (Case 25.)

c.—*Opacity of the Capsule and Lens.*—This presents several very interesting phenomena. From the true capsular opacity, we must distinguish the appearance described already in Div. IV. and produced by lymph thrown out, not from the capsule, but from the line of serous membrane which overlaps its edge. It is in the condition of the eye thus produced, that adhesions are apt to form between this narrow strip of membrane and the opposite serous surface of the back of the iris.

There is sometimes, however, a true *cloudiness* of the centre of the anterior *capsule* (Case 24), almost invariably disappearing with the inflammation; though in a few unfortunate and neglected cases (Cases 4, 26) there resulted a permanent or cataractous *opacity* of the capsule,—a well defined irregular patch of thickening from the effusion of lymph.

I have observed a similar permanent *opacity*, once of the anterior, and once of the posterior *pole of the lens.* The first occurred in a patient of Dr Mackenzie's, and consisted of three equidistant radii (Fig. 4), meeting in the centre of the anterior surface of the lens. It was evidently owing to a deposit of lymph in the cellular substance, which there unites the ends of the lenticular fibres, and remained unchanged long after the subsidence of the inflammation. The posterior opacity existed in both eyes in Case 27. Deep in the centre of each pupil could be distinctly seen a small whitish quadrangular patch (Fig. 5), perfectly opaque, and having exactly the form which Henle (*Encycl. Anat.* v. 354) describes and depicts as being proper to the cellular substance which unites the fibres at the posterior pole of the lens.

In the ordinary pupillary cloudiness, is the lens itself ever the

seat of the opacity, or does this affect the capsule only? The application of the catoptric test furnishes our only means of answering the question.

In Case 42 the lens alone was muddy. There was a faint greenish colour, as if deep behind the pupil; and, just as in ordinary *glaucoma*, while the deep erect image of a candle was more than usually distinct, the inverted image was indistinct. In Cases 28 and 32 there was the same greenish reflection, and the same indistinctness of the inverted image; which in Case 32 became again quite clear and well-defined during the cure. These then I hold to have been cases of true acute glaucoma of the lens.

Obscurity and enlargement of both deep images coincided in Case 29 with muddiness of the pupil, perhaps seated in the anterior capsule alone; and in Case 33, the pupil being in the same condition, the inverted image was scarcely visible, while there was no deep erect one to be seen. As the inflammation yielded, both became distinct. In Case 30, the pupil being as above described, no deep image could be seen; but as the cure advanced, the inverted one became distinctly visible.

That the inverted image may be visible, while the deep erect one cannot be seen, is evidenced by Cases 33 and 39. Here, in all likelihood, the anterior capsule only was affected, being dull enough to prevent its throwing forwards a reflection of the candle, but not so opaque as quite to hinder the transmission of the image from behind.

It need not surprise us, that during the inflammatory stage of the disease the nutrition of the lens should be interfered with; and that some degree of opacity should thence result; for it will be recollected, that the anterior capsule is nourished by blood from the ciliary corona, and the lens by imbibition from the branches of the ciliary and retinal arteries that envelope it. Such a derangement in the choroid circulation as we shall see takes place in this ophthalmia, must needs, then, influence more or less the condition of these transparent parts.

Div. VIII.—*Affections of the Vitreous Body.*

A.—*Modified secretion.* The softness of the eyeball which I have already noticed occurred in a great number of cases during the acute stage; but the degree of this alteration bears no constant relation to that of the pain or the blindness experienced. Thus it was very marked in some cases during the amaurotic stage, before inflammation had come on; and in others the patient could read small type, though the eye was almost boggy; while lastly, cases occurred in which there was high inflammation, and very imperfect vision, and yet the eyeball retained its natural firmness. During convalescence the flexibility of the coats of the eye gradually disappears, and the consistence of the organ becomes once more natu-

ral, (Cases 3, 35, 36, 39,) but often not till long after the other symptoms have yielded.

The connection of this softness of the eye with a deranged state of the vitreous humour, is illustrated by cases in which it was accompanied by a diffused muddiness, (Case 37,) a deep-seated opacity, (Case 38,) or the presence of a mass of lymph floating in that body, (Case 39); but with the theory which accounts for the softness by supposing a dissolved state of the vitreous body, I must confess myself dissatisfied. For first, the iris is never tremulous, as in ordinary cases of that kind; and secondly, it is difficult to suppose that the vitreous cells, if broken down, should be restored to their former state at all, or at least so rapidly as the eyeball sometimes regains its firmness. The most probable supposition seems to me to be, that there is a deficient secretion of the fluid which fills the vitreous cells; and that this depends upon the congested state of the choroid and ciliary vessels, and consequently of those of the hyaloid membrane, which are derived from these, especially from the zonule of Zinn. In two Cases, (2, 35,) photopsia, indicating derangement of the choroid circulation, accompanied the softness of the eye. I have already noticed the coincidence of flexibility of the eye with asthenopia and myopia, which, it will be remembered, I attributed to a like derangement; in Case 3, the softness and the asthenopia disappeared together; and in Case 55, under the use of quinine, the softened eyeball became firm, and the contracted pupil expanded to its natural size,—changes which I believe to have depended on relief having been obtained from the congestion which the debility of the vascular system of the eye had produced.

B.—*Opacity*, deep in the eye, was observed in this disease by Wallace, and occurred to me seventeen times. In most of these cases it seemed to be seated in the vitreous body, and it came into view on the clearing of the pupil, previously usually more or less nebulous.

Of the various forms of this opacity, a diffused *muddiness* is the simplest, (Case 25.) In Case 37 this disappeared in three days after the exhibition of a purgative, and the application of a blister. In other instances, the opacity was more distinct and local, and when seen in a strong light thrown through the pupil with a lens, presented various forms. Sometimes it was a mere *opalescent reflection* from the back of the eye, which, in Case 40, did not hinder the patient from being able to read the numbers on the tickets, (about an inch and a-quarter long). Once this opacity was vertical and elongated, (Case 31.) This was on the 24th of January; on the 27th it was much less discernible; and when the patient returned on the 5th of March, the vitreous humour was quite clear, and the presence of a musca constituted the only imperfection in vision. In one very severe case (Case 38) there appeared at the bottom of each eye a greenish white *tapetum*, strongly reflecting light; yet this woman

could read large type with one eye. In Case 41 the reflecting opacity was confined to the lower half of the eye, and accordingly the patient saw with the upper half of the retina only.

What is the nature of these opacities? I was at first inclined to believe that they depended on an effusion between the retina and choroid, like that supposed by Schroëder Vanderkolk to occur in glaucoma; and in one little boy (Case 42) there was (from the whole of the bottom of the eye) a general greenish-brown reflection, the appearance of which seemed to countenance this opinion. In Case 41, however, it was negatived by the changes which took place as the case went on. On the 26th of December the opacity was first noticed, as above described; on the 6th of January it had become much less marked; and on the 15th it was loose, and floating tremulously in the vitreous humour in front of the retina. On the 26th, or a month after it was first observed, it could scarcely be seen, and the little girl could almost read small type.

In some cases, besides that just recounted, there was distinctly seen behind the pupil a *moveable opaque body*, changing its position as the eye turned, (Cases 30, 39, 43.) This, evidently an effusion of lymph in the vitreous body, presented various irregular forms: was in one case (Case 41,) nearly quadrilateral, and seemingly membranous (Fig. 6,);—in another somewhat reticulated, or filamentous. In none did I observe the opaque body vascular, as it is so often seen to be when it forms in consequence of wounds of the eye. I was agreeably disappointed with these cases, finding what seemed a hopeless opacity to disappear under mercurial treatment, while the patient regained such powers of vision as to be able to read small type, (Cases 39, 41, 43.)

In one severe and otherwise peculiar case, (Case 4,) there appeared on the clearing of the pupil a metallic reflection from the bottom of the vitreous humour, resembling exactly the traumatic *cat's eye*, which sometimes follows penetrating wounds of the eye in children. There was also present a remarkable swelling, occupying the outer part of the eyeball, and discharging, after puncture, a small quantity of matter. It appeared to me to be an *intraocular abscess;* but the patient soon ceased to attend, and I lost sight of her.

c.—*Displacement of parts* naturally supported by the vitreous humour may occur; as in one case, in which, during the early inflammatory stage of the disease, the iris was distinctly bulged forwards towards the cornea; perhaps by too abundant a secretion of the vitreous fluid.

Div. IX.—*Affections of the Retina.*

From my studies having been confined to the living eye, my knowledge of these affections is of course limited to that of their symptoms; but knowing, as we do, the intimate connexion between the circulation in the choroid and that in the retina, and the pressure which distended vessels in the former must make on the latter,

we may at once understand how easily excitement of the retinal vessels, and consequent photopsia may occur, or how a local or general amaurosis may follow upon the intra-ocular congestion which we have seen likely to take place.

The lesions of sensibility of the retina usually constitute, as we have seen, a separate stage of the disease, antecedent to that of inflammation; they are, however, by no means confined to an early part of the malady.

A.—*Amaurosis*, in its various forms, is by far the most frequent, in fact, an almost invariable attendant on the disease; in a few cases *general dimness of vision* is alone complained of throughout its course; but in the great majority, some particular part of the retina is chiefly affected. Hence a fixed *musca*, caused by congestion of this membrane, or of the choroid behind it, usually hangs before the sight, and when the inflammation comes on, is succeeded by general amaurosis; and yet I have seen the inflammatory attack not accompanied by any increase in the amaurotic symptoms. Again, I have found this order reversed, and general dimness usher in the complaint, to be replaced by muscae on the occurrence of inflammation; and in one instance (Case 47,) the dimness of vision disappeared almost entirely when the inflammation supervened; as if the excitement of the sclerotic and neighbouring parts had acted as a derivative, and thus relieved the congestion of the retina. Also, though the musca usually ceases to be observed when the general dimness of vision comes on, I have seen cases in which it was still said to be present, though the patient had mere perception of light and shade, (Cases 16, 40). The degree of amaurosis, as I have already remarked, is by no means always in accordance with the violence of the inflammatory symptoms. Thus, in Case 46, although the iris was darkened, the pupil contracted and irregular, and the capsule vascular, the patient could easily read small type. This is not like common inflammation producing blindness as its result, but rather points, as all the history of the cases does, to an affection of the retina, not necessarily connected with inflammation. The musca is usually more or less lateral: it has been described to me as resting on the nose when the eye was directed forwards, or as seeming to hang suspended, as it were tangibly, at a little distance from the face; and if there are two, they sometimes seem as if placed at different distances from the eye. Sometimes (Case 44, Nov. 1) it constituted a *diffused cloud* rather than a speck; in three cases, (Case 44, Nov. 16, Case 45, March 1st), the musca was described as *annular;* in one it resembled *bundles of hair;* in another, a *cloud of soot*, gradually changing into a *white fog;* it was like a *veil of gauze* in a third; while not unfrequently there were present the real *muscae volitantes*, with their long irregular strings, among which, in one case, as the patient showed me on paper, the *fixed speck* hung. In one instance there was a constant fixed musca, and many others which appeared occasionally, pro-

bably according to the varying state of congestion of the retina. One man, (Case 36,) who had regained perfectly clear vision after the subsidence of the inflammation, complained that the muscae always returned when the circulation was quickened by exertion; another patient, that they came back when he was costive, (Case 44). Vision is sometimes variable even during the inflammatory stage, (Case 44), but more usually during convalescence,—the patient being able to see best in the morning (Case 32) or in the evening.

B.—*Intolerance of light* was rather rare, being remarkable in only five cases, and in two of these there was a complication with ophthalmia scrofulosa. In the case in which the adjustment of the eye to near objects caused pain, there was no intolerance,—a proof, I think, if one were needed, that irritation of the ciliary body, ("cilitis"), which we have seen as the probable cause of asthenopia, has no connexion with photophobia, as Bérard (An. d'Oculistique, 1844) has supposed it to have. In no case did intolerance coincide with very severe inflammation; and once, while the deeply seated tissues were involved, there was even what might be called the reverse of photophobia, the patient requiring a strong light to enable him to distinguish objects.

C.—*Pyropsia*, or the appearance as of sparks and flashes of fire before the eye, occurred to me in thirteen cases. In two (Case 25) of these it was the earliest symptom, and preceded the amaurosis by a week; in another, it followed muscae, and was accompanied by increased dimness of vision, but preceded by some time the inflammatory attack: in this instance the flashes of light were seen only in the dark. In four cases (Cases 26, 35,) the photopsia accompanied the inflammatory stage; and in five (Cases 2, 3,) it occurred for the first time when the eye was getting well under treatment,—the luminous flashes being by two of these patients perceived only when the eye was moved or opened. In all these instances there must have been more or less irritation of the retina, and not the mere congestion that seems usually to exist.

D.—*Chroopsia*, or coloured vision, I met with four times. One patient stated that he saw everything of a green colour; another, (Case 1), that a green haze seemed to hang constantly before the eye. This floating mist was red in Cases 27 and 47; in Cases 26 and 40, the muscae which hung before the eye had a blueish green hue; in Case 48 flashes of purple light were frequently perceived, becoming yellow as the symptoms yielded to treatment; and lastly, in one instance purple muscae were complained of after convalescence.

E.—A deficiency in the power of distinguishing colours is stated by Dr Jacob to have been one of the symptoms observed by him in the post-febrile ophthalmia,—blue and green being confounded, he says, with black. I have carefully examined this point, and conclude that there is no inability to distinguish colours, other than what necessarily results from the indistinctness of vision:

when there is marked amaurosis all colours appear darker than natural, and blue and green come thus to resemble black.

Div. X.—*Complications of the Disease.*

A.—Once (Case 42) the inflammation became, during its continuance, complicated with *strabismus;* in one case of Dr Mackenzie's, (Case 49), with what seems to have been *periostitis* of the orbit; but these things, from their rarity, are of small consequence.

B.—Of greater interest are those cases in which there was a combination of the symptoms proper to the disease of which I am treating with those of the *scrofulous* or *syphilitic* ophthalmiæ. The former has been already noticed; of the latter, we have examples in Cases 50 and 51. In the first of these the patient had syphilitic inflammation of the eye up to the febrile attack, ever since which the pain had been less till the access of the postfebrile ophthalmia shortly before admission. In the second case the presence of condylomata on the iris, never found in the simple postfebrile disease, and of ulcers on the fauces, induced me to believe that syphilis existed.

PART III.—PATHOLOGY OF THE DISEASE.

In respect of what I have said already of the causes and nature of the disease, this section may be brief.

A.—The fever we have been concerned with is *not the only one* which is followed by an affection of the eye; although it is perhaps that of which this is the most frequent sequela; for, setting aside the puerperal ophthalmitis, probably connected with inflammation of the uterine veins, we find Dr Mackenzie stating, on the authority of Dr Lawrie of Glasgow, that a like affection is apt to follow the *remittent fever* of India; and even our own *typhus* is occasionally followed by similar symptoms. Two cases of this kind, which occurred to the late Dr Cowan of this city, are detailed by Dr Mackenzie, in his work on the diseases of the eye; another, of which I have unfortunately preserved no notes, I saw in the Royal Infirmary when clinical clerk to the late Dr William Young; and, in a third, in the same hospital, under the care I think of Dr James Brown, there occurred, as an immediate consequent on the fever, amaurosis of one eye, with turbidity of the aqueous humour, and dilatation of the pupil. A girl, labouring under postfebrile ophthalmitis, and admitted last year by Dr Mackenzie to the Eye Infirmary, said that she had five years ago been a patient there with an exactly similar affection following ordinary typhus; and on consulting the old journal, I found that she had laboured under an internal ophthalmia, requiring repeated bleeding, and the use of mercury; in the old report the description is not very minute, and nothing is noted about the fever; but the patient assured me that the complaint began then, as on the present occasion, by the appearance of a musca before the eye, about a fortnight after convales-

cence from the fever. Another patient (Case 31) had been troubled with muscæ before one eye since recovery from typhus two years before; and the new postfebrile affection was ushered in by photopsia and increased blindness of the eye previously affected.

A child was brought to the Eye Infirmary with deep-seated inflammation of the eye, exactly resembling many of the postfebrile cases—but consequent to an attack of *measles*—and *erysipelas*, I have twice seen followed by similar symptoms; thus in one case the patient had erysipelas a year before he came under my observation, and it had been followed by dimness of vision of both eyes, with muscæ before the right one; these symptoms lasted for four months, and the left eye at last became affected with postfebrile ophthalmitis after an attack of the prevalent epidemic.

B.—The disease seems to be connected with a *depravation of the blood* consequent upon the fever, during which it is well known that the secretion of urea at least is frequently interfered with, sometimes so much so as to cause speedy death from poisoning. We have seen that the ophthalmitis usually begins within a few weeks of convalescence, and those who have observed the fever know that recovery from its effects is commonly very slow; indeed the aspect of the patients admitted by me to the Eye Infirmary was very often such as to indicate considerable weakness, and a deficiency of red globules, and of fibrin in the blood. Yet there were cases in which the face was florid, and the person stated that he had been long at work, and felt quite strong; when blood was drawn, however, it did not exhibit a healthy appearance. The clot was in almost all cases loose and large, (Case 1,) often very dark, (Cases 4, 18, 35,) in some instances adhered to the cup all round, while a very small quantity of serum floated on its surface, (Cases 44, 45.) These peculiarities indicate such a deficiency of *fibrin* that the clot does not contract as it ought to do.

Thus, on the blood of a girl aged 19 (A), who had recovered three months before from fever, and had been for three weeks affected with ophthalmitis, there formed no buff; and the quantity of fibrin was under the natural standard.

	Healthy.	A.	B.
Water, ...	780	792	790·3
Albumen, ...	80	77·8	71·4
Salts of Serum, .	8	7·3	4·9
Globules, ...	129	120·1	131·1
Fibrin, ...	3	2·8	2·3

When the eye inflames the blood becomes buffy, (Cases 20, 40, 46,) and its fibrin more abundant; yet still not above the standard of health, while the buffy coat is loose, sizy, (Case 51,) and gelatinous, (Case 20.) Thus in one case, when the clot was very buffy, but not contracted, being dark and soft below, the fibrin amounted to only 3·3 per 1000; in a girl of 16, who had recovered three months before from fever, and whose eye had been for a week inflamed, the clot was contracted and buffy, the fibrin only 2·3 per 1000; and the

same proportion existed in case B; viz., that of a man aged 39, but otherwise in the same circumstances with regard to the disease as the girl just mentioned, and whose blood presented exactly the same appearance as hers did. It is well known that in a case of sthenic inflammation in a previously healthy person, the quantity of fibrin rises to double or triple the natural amount.

The *serum* I have found turbid from the presence of albuminous particles; and in case B, the *salts* were very deficient; in correspondence with the last noticed peculiarity the blood was in several cases very dark when emitted, and flowed languidly from the vein. I have repeatedly looked for, but never detected, an alteration in the form of the *corpuscles;* but in one instance the serum was reddish from a dissolved state of the colouring matter.

C.—The postfebrile is in some respects *related to the rheumatic and arthritic ophthalmiæ;* but though, like rheumatism, sometimes *metastatic*, (Case 52,) its severity bears no relation to that of the rheumatic symptoms accompanying the preceding fever; for in only three cases (Case 22.) did the patients state, that they had suffered much from rheumatic pains during the fever; and I took some trouble to ascertain this point. We have already seen the connection of the postfebrile with the *scrofulous* ophthalmia; in some instances the diagnosis can be made only from the history; but while the postfebrile usually attacks the deep-seated parts of the eye, and but seldom the superficial tissues alone, the scrofulous ophthalmia is commonly a conjunctival disease, the proper tissue of the cornea and the iris being fortunately much more rarely affected. I conclude, then, that the disease we are studying presents the essential characters of a *blood disease*.

D.—I may notice an interesting parallelism between the fever itself, its immediate sequelæ, and its more remote consequent. The most prominent symptoms of the epidemic fever arose from two classes of disorder, *congestion of vascular viscera*, viz., the liver and spleen; and *rheumatism* of the fibrous tissue. So the most marked, perhaps, of its immediate sequelæ were *renal congestion*, causing albuminuria and dropsy; and *arthritis*. And thus, too, in the subsequent affection of the eye, we can trace the distinction between the *congestion* of the vascular choroid, and the *inflammation* of the fibrous sclerotic.

PART IV.—TREATMENT OF THE DISEASE.

A.—I quite agree with Dr Mackenzie, that *bleeding*, *mercury*, and *belladonna* form the triple cord, on which our practice may most safely hang; but I think I have seen to flow from active *purging*,—from smart mercurial purgatives, followed by salines,—more good than he seems to think it yields: in Case 56, Dec. 2, the good effects of a purge were very evident. See also Cases 16, 19, 32, 38. For examples of the good effects of mercury, after leeching, see Cases 21, 25, 45. For instances of the beneficial results of bleeding,

purging, and mercurialization, consult Cases 1, 3, 32, 33, 39, 50, 51, 58.

Jeaffreson, in his work on Diseases of the Eye, gives a case in which amaurosis disappeared during an attack of cholera; and free purging was, in many of my cases, of like beneficial effect.

General amaurosis suddenly coming on is much more tractable than what might seem the less formidable muscae, for which, perhaps, the patient scarcely cares. Thus in Case 54, the woman, previously well, found on awaking in the morning, that she could scarcely see the light. She was bled and purged, and next day complained merely of the presence of a faint haze before the eye. Under depletion and mercury the diffused dimness of sight scarcely ever (except in long neglected cases) fails to yield; while the muscae, continuing after the inflammation has been subdued, and being probably connected with loss of tone in the choroidal capillaries, persist long, and are often to be removed rather by the tonic power of *counter-irritation* and *quinine*. The photopsia which sometimes occurs during convalescence may be explained by supposing a renewed activity of the circulation in the retina, on the disappearance of the congestion which we formerly saw likely to exist.

Seldom has it been needful to repeat the bleeding, although I did so once with the best effect after the mouth had been affected by mercury. Cupping and leeching are often useful after venesection, though in some rare cases the patient has complained that he saw worse after leeches had been applied, (Case 36.) In few instances is it safe to trust to local depletion alone.

Though a spontaneous cure is sometimes observed (Cases 52, 53), yet the disease is not to be trifled with; and in Cases 22, 23, 24, 26, 57, we have examples of the dangers and the evil which may result from irregular or feeble treatment. In Case 9 may be seen the bad consequence of stopping the mercurial course too soon, and the benefit from resuming it.

When the acuteness of the inflammation is over, blisters are very useful (Case 56), and quinine is of benefit in the subsequent stage of congestion from weakness, (Cases 41, 45, 50.) The dependence upon mere congestion from debility of much of the dimness of sight that remains after the inflammation is subdued, is evidenced by those cases in which vision was clearest in the morning, as well as by that of a boy (Case 55), who had, after treatment by depletion and mercury, come to see pretty well, but whose sight became at once very dim when he exhibited general debility, and cleared up completely after a few days' use of quinine; while at the same time the softness of the eye, which had also been present, and which, we have seen reason to believe, depends on congestion of the choroid, almost entirely disappeared. Yet quinine must be used with great caution: as I have seen the imprudent employment of it result in increased blindness, or be followed by photopsia and returning sluggishness of the pupil, (Case 57.) Quinine was used successfully in combination with

calomel in Cases 41, 45, thus uniting the mercurial and the tonic plans of treatment. From what I have said, it will be seen that Mr Wallace's mode of treatment by bark alone is wholly inapplicable to the postfebrile ophthalmitis, at least as it appeared in Glasgow. Dr Mackenzie's observation has led him to the same result.

Ought we always to give mercury? I think we ought. The organ in danger is one of great importance, and the cases already quoted show how great a peril to its efficacy may be involved in the omission of the use of this medicine, as well as the prompt amendment which its exhibition often produces; (see also Cases 21, 29, 39, 50, 51, 58.) In some of the slighter cases, however, I tried the non-mercurial treatment, with the following results:—By a *purgative*, followed by full doses of *Dover's Powder* (Case 19); by full doses of *nitre* (Case 59); by the free use of *tartar emetic and opium;* of *turpentine* (Case 60); of *colchicum after bleeding* (Case 44), have I indeed cured cases, and even when the symptoms were pretty severe.

But yet, on further experience, I saw it right to use mercury in almost every instance; and I think that a perusal of the cases to which I have referred will justify my resolution. Beginning by the use of other means, I have found them to fail, and have been then compelled to resort to mercury, and to use it at a disadvantage, as is always the case when the disease is of old standing. *Colchicum* and *belladonna* are useful adjuvants; the former in assuaging pain in the rheumatic, the latter in lessening intolerance in the scrofulous forms of the malady. *Iodide of potassium* I think I have seen (Case 25) useful in removing the muscae which outlast the acute attack; although it is not very easy to speak positively of the effects of a drug slow of action, and following a mercurial course, to which alone, or to the unaided efforts of nature, the improvement may have been due.

When used actively and judiciously, the treatment I have pointed out—that by depletion and mercury—will often have the best effects, even in very bad cases (Cases 3, 34, 47). Opacity of the vitreous body itself is, as we have seen, by no means a hopeless state. It is true that a relapse may take place, even while the mouth is sore (Case 9); it is true that there occur a few obstinate cases (Case 18), which yield slowly and reluctantly to the remedy, even when one cannot well see why they should be more intractable than others which seem as severe as they (compare Cases 18 and 31); but these are the exceptions; as a general rule, the postfebrile ophthalmitis is most amenable to the treatment I have indicated. Amaurosis even of long standing, consequent upon fever, yields to remedies more easily than amaurosis arising from other causes, (Case 61.)

2. *The average duration of the disease.*—Since the patients at the Eye Infirmary usually cease to attend before vision has been quite restored, no conclusion can be arrived at as to the persistence of the *amaurotic* symptoms; and from the extremely irregular attendance

of many of them, the duration of even the *inflammatory* stage (which I calculate not from the beginning of the treatment, but from the earliest occurrence of pain or redness of the eye) could be ascertained in 60 only of the 154 cases which I treated.

We find, as indeed might be expected, that this period varies with the time which has elapsed between the occurrence of the inflammation and the beginning of the treatment. Thus the average duration of the inflammatory stage was, in 35 cases admitted before the 10th day of the inflammation, 21 days; in 15 cases admitted after the 9th, and before the 20th day, 26 days; in 10 cases admitted after the 19th day, 49 days.

Three weeks may then be stated as the average duration of the acute period of the malady in cases not neglected, and the good effect of treatment is as manifest in shortening the course as in obviating the bad effects of the disease.

I had supposed it possible that the length of time during which the amaurosis had existed, previously to the occurrence of the inflammation, might have modified the duration of the latter, and so complicated the result; this, however, I found not to be the case. Thus of the 35 cases in which the treatment began before the 10th day of the inflammation,—

15 in which the inflammation occurred before the 10th day of the amaurosis had an average duration of 20 days,

20 in which it occurred after the 9th day, 21 days, or very nearly the same endurance.

It is a curious fact, that as far as my cases go, the disease seemed to become more obstinate as it was less prevalent. This will be seen from the following table of the average duration of the acute stage, in the 50 cases admitted before the 20th day of the inflammatory symptoms:—

Of 16	admitted in Nov. 1843, ...	19 days.
Of 13	admitted in Dec., ...	20
Of 15	admitted in Jan. 1844, ...	22
Of 44	admitted in Nov., Dec., Jan., . . .	20
Of 6	admitted in May, June, July, 1844, .	36

Such is the history of the "Postfebrile Ophthalmitis," as observed by me in Glasgow in 1843 and 1844. That it presented many interesting points for study, will, I think, be denied by none. It is, perhaps, of all the diseases of the eye, the most comprehensive in its nature, and that which teaches most completely the important lessons on morbid anatomy, pathology, and therapeutics, which the complex structure, the multiplicity of tissues, and the delicate functions of the human eye fit it so well to illustrate.

DESCRIPTION OF THE FIGURES.

Fig. 1. The "sooty brown spots" on the capsule.
Fig. 2. The "red tag" of the capsule, Case 25.
Fig. 3. The "wreath of vessels" on the capsule, Case 24.

Fig. 4. Opacity in the anterior pole of the lens.
Fig. 5. Opacity in the posterior pole of the lens, Case 27.
Fig. 6. Opaque moveable body in vitreous humour, Case 41.

ILLUSTRATIVE CASES.

Case 1. *Postfebrile Ophthalmitis, with deformity of pupil, and lymph effused on capsule, but no change in the colour of the iris. Cure by depletion and mercury.*—13474. Susan M'Wha, aged 43, November 30, 1843. Since convalescence, nine weeks ago, from relapse after fever, has complained of muscæ before the right eye; and for the last five days has had ocular pain and tenderness. She now can just distinguish the light, and has a perception of greenness, and many floating muscæ before the eye. Redness of eye moderate: light grey iris unchanged in colour, but pupil contracted, irregular, and bordered by a ring of lymph on the capsule. Pulse firm.— *V.S.—Bellad. ad palpeb. Sum. vesp. pulv. purg.—c. m. sulph. mag.* ℥*j.*

December 1. Pupil somewhat dilated. Vision improved. Can see the large type, while the pain is gone and the capsule clear. Fifteen ounces of blood drawn; clot large and loose.—*Rep. medicam.*

2*d.* Did not wait for medicines. A return of pain last night.—*Sum. subm. hyd. gr. v. pulv. opii gr. i.—c. m. rep. sulph. mag.*

4*th.* Can see the small type. Eye still tender, but the pain and redness are much diminished. Mouth sore.—*Ad palp. hirud. ij. Sum. ter in die vini colchici* ℥*ss.*

17*th.* Pain and objective symptoms quite gone, except that the right pupil is somewhat smaller than the opposite one. Perceives two small muscæ before that eye. Bowels costive. Mouth sore.—*Cap. sulph. magn.* ℥*j.*

19*th.* Vision improved.—*Omitt. colchicum.*

January 15. Vision perfect. Eye natural.—*Dismissed cured.*

Note. The acuteness of vision is measured, in this and the following cases, by the power of seeing,

1. *The numbers on tickets*—being numerals about an inch long.
2. *The large type* on the Infirmary card.
3. *The small type.*

The *pulvis purgans* is composed of subm. hyd. g. v. pulv. jalap g. x.

Case. 2. *Postfebrile Ophthalmitis, exhibiting the access and disappearance of the Amaurotic Symptoms. Photopsia. Treatment by leeches and mercury.*—13601. Margaret Rilley, aged 20.—*Jan.* 9, 1844. Recovered three months ago from fever; has had muscæ before right eye for two months, and pain for a fortnight. The muscæ are now replaced by general dimness of vision, so that she cannot read large type. Eye-ball soft and tender, with considerable redness. Lower edge of cornea opaque; brown iris unchanged; pupil slightly muddy and sluggish. Photophobia. Has been leeched, and mouth touched with mercury. Pulse weak.—*Ad. palpeb. dextras hirud. vi. Sum. ter in die Ext. colch. acet. gr. i. Ext. Bellad. gr. ss. Pil. hydrarg. gr. iv.*

10*th.* Photophobia gone. Pain and redness much less; the latter now solely conjunctival.

11*th.* Mouth sore.—*Omitt. pil.—Sum. vesp. pulv. Doveri. gr. x.*

12*th.* Photopsia on opening eyes. Redness and pain all but gone.—*Sulph. Magn.* ℥*ss.*

14*th.* Photopsia and redness gone. Can read small type. Muscæ.—*Belladonna ad palpeb.*

15*th.* Pupil dilated, exhibiting a tag of the iris to capsule, on which are brown spots.

17*th.* Mouth still very sore. Sees better.—*Sulph. magn.* ℥*j.*

19*th.* Right pupil the smaller.—*Vesic. pone aurem dext.*

21*st.* Eye-ball still rather soft.

25*th.* Mouth nearly well.—*Rep. vesic.*

28*th.* Small muscæ continue. Objective symptoms gone.—*Sulph. magn.* ℥*ss.*

30*th*. *Rep. vesicat.*
Feb. 4. Vision improves.

Case 3. *Postfebrile Ophthalmitis.—Loss of vision of one Eye, followed by a severe attack in the other,—Depletive and mercurial treatment successful,—Use of colchicum,—Subsequent asthenopia and photopsia.*—13632. William Campbell, aged 49, January 18, 1844. Recovered 13 weeks ago from relapse after fever. A month after, muscæ appeared before right eye, and inflammation followed. This is now gone, but vision is completely lost; the eyeball is soft; the cornea shrunk; iris conical forwards, while the pupil is closely contracted upon a minute mass of lymph.

Some weeks after the inflammation of right eye had ceased, and 17 days ago, left eye was suddenly attacked with inflammation and pain, not preceded by dimness of vision. There is now intense redness, particularly of the conjunctiva, of this eye; the iris is green, and presents a small patch of blood at the margin of the pupil, which is muddy and contracted; eyeball soft; ocular and circumorbital pain severe; pulse weak.—*V. S.—Ad palpeb. sinist. hirud. vi. Sumt. stat. pulv. Doveri gr. viii. Subm. hyd. gr. vi.*

19*th*. ℥xii of blood, buffed. Pain less, and vision clear after bleeding.—*Rep. hirud stat. Sumt. sulph. magn. ℥j. et vesp. repet. pulv.*

20th. Can read large type; mouth affected; pain less severe.—*Repet. sulph. magn.; Bellad. ad palpeb.*

21*st*. Pain continues; pupil more dilated.—*Sumt. subm. hyd. gr. iv. pulv. Doveri gr. x.—Capt. vini colchici gtt. xxx. ter in die.*

22*d*. Pain gone; nausea and purging; pupil clear; redness less.—*Vesp. repet. pulv.*

23*d*. Can just read small type. Pupil natural, with one tag to capsule; conjunctiva vascular around cornea; pain of eye gone; much griping and purging.—*Omitt. vin. colch. Sumat. ol. ric. ℥j.*

25*th*. Redness nearly gone.—*Rep. ol.*

26*th*. Reads small type easily when he first looks at it, but cannot continue the effort; occasional photopsia.—*Sulph. magn. ℥ss.*

27*th*. Mouth still sore.—*Rep. magn.*

28*th*. Muscæ, with some pain of eye.—*Ad palp. sinist. hirud. iv.*

31*st*. Eyeball firmer; muscæ continue. Can distinguish the light with right eye.

Case 4. *Severe and neglected Postfebrile Ophthalmitis, ending in disorganization of the Eye, with Abscess.*—13481. Jean Whiteside aged 17. *Dec.* 2. 1843. Convalesced 4 months ago from relapse of the fever, and has ever since had dimness of vision of left eye, which gradually increased till the accession of pain, a fortnight before present date, at which time vision became extinct. Much temporal pain, and supra-ocular pain and tenderness worst during night. The eye is intensely red, and there is a swelling of the ball close to the outer edge of the cornea, which is muddy and atrophied. The (grey) iris has become brown, and it presents red vessels radiating towards the contracted and irregular pupil; pulse quick.—*V. S.—Bellad. ad palp.—Sum. 8va q. q. h. submur. hyd. gr. ij. pulv. opii.—tart. antim. ā ā gr.* ½.

3*d*. ℥x of blood; clot large, dark, and gelatinous. A clot of blood lies in front of outer part of iris; pain nearly gone. Can just distinguish the light.

4*th*. Iris less vascular; mouth slightly affected.

5*th*. Cornea clearer; vomits powder; pain has returned.—*Hirud. vi. ad palp. sinist. Omitt. pulv.—Sum. ter in die Submur. hyd. gr. ij. pulv. Doveri, gr. x.*

8*th*. Nausea and vomiting; cornea clearer, and a yellowish reflection deep behind the pupil.—*Omitt. pulv.*

12*th*. Pain gone; iris of a more natural colour.

17*th*. Vascularity of eye much less, and effused blood nearly absorbed. Cornea and pupil quite clear, there being a distinct cat's eye reflection from deep in the vitreous humour; mouth still sore.

Jan. 14*th*. Has not attended since last report. The inflammation, which had diminished, has returned; the iris is now nearly in contact with the cornea; the blood has been absorbed, and the swelling of the eyeball has increased. The iris

is still vascular; the anterior capsule presents a slight opacity, and the bright reflection from the bottom of the eye is still apparent.—*Hirud. vi. ad palp. sinist.* —*Sum. ter in die extracti colchici gr. j. Extr. Bellad. gr. ss.*

19*th.* Pain nearly gone.

21*st.* Projecting part of eyeball begins to point, and to assume a yellowish appearance.

24*th.* Tumour having been punctured with a needle, a few drops of blood escaped.— *Omitt. med.*

Feb. 4*th.* A new effusion of blood into anterior chamber. Pus is still discharged from the opening in tumour; has no pain, and no vision with this eye. She refused to submit to further treatment, and was dismissed irregular.

Case 5. *Postfebrile Puro-mucous Conjunctivitis— Cure by local remedies.* —13606. Elizabeth Harland, aged 13 months. Jan. 10, 1844. Recovered three months ago from relapse after fever. Since then right eye has been weak,—five days ago it became inflamed, and swelling of the lids, with considerable puriform discharge, has supervened; cornea and iris unaffected.—*Ad palp. sup. dext. Hirud. ij.—Capt. sulph. magn.* ℥*j. Ut. collyr. c. Belladonna.*

11*th. Gtt. sol. nitr. arg. gr. xxx ad* ℥*j. om. die.*

12*th.* Inflammation diminished.— *Ol. ricini,* ℥*ij.*

13*th.* Inflammation lessens.

15*th.* Inflammation gone.

Case 6. *Postfebrile scrofulous Conjunctivitis.*—13588. William Kemp, aged 11, January 4, 1844. Recovered six weeks ago from a slight attack of fever. A fortnight thereafter conjunctival inflammation occurred, first in right, then in left eye. The right is now chiefly engaged; its sclerotic somewhat vascular, its cornea nebulous and rough, with a small albugo; and the eyeball softish.—*Ad palp. dext. hirud. vi. Sum. sulph. magn.* ℥*ij.*

5*th.* Irritation much diminished.—*Sum. tinct. Belladonn. gtt. viii. ter in die. Rep. sulph. magn.*

7*th.* Intolerance almost gone.—*Sum. gtt. x. ter in die. Vesicatoria pone aures.*

11*th.* Nebula of right cornea diminishing, and redness of both almost gone.— *Sum. gtt. x. bis in dies tantum.*

21*st.* Eyes nearly well.

28*th. Omitt. tinct. bellad. Utat. collyrio mur. hyd.*

March 11*th.* Ophthalmia catarrho-pustulosa of right eye.— *Ung. prec. rub.*

Case 7. *Postfebrile Ophthalmitis, complicated with scrofulous ophthalmia.*— 13555. Matilda Watson, aged 25.—Dec. 25, 1843. Recovered two months ago from relapse after fever; and has since had epiphora and glueing of eyelids. Three weeks ago there supervened ocular and circumorbital pain on left side. There is now inflammation of the eyelids, considerable redness of eye, and speckled opacity of the corneal conjunctiva, with photophobia; pupil contracted and irregular; the (blue) iris being discolored; pulse quick and weak; is nursing.—*Ad palpebras sinist. hirud. viii.—pulv. purgans vesp. C.M. sulph. magn.* ℥*ss.*

26*th.* Pain less.—*Sum. vesp. submur. hyd. gr. v. pulv. Doveri gr. xii.*

27*th.* Improves; considerable conjunctival irritation.—*Sum. ter in die pil. hyd. et ferri.*

29*th.* Pain increased.—*Hirud. iv.—sum. ter in die Extr. Bellad. gr. ss.*

Jan. 2*d.* Pain gone.

Case 8. *Postfebrile Ophthalmitis, complicated with scrofulous ophthalmia.* 13475. Robert Farmer, aged 13, November 30, 1843; convalesced a month ago from relapse after fever. After exposure to cold a fortnight ago complained of pain in the ball of right eye, which, however, is not severe. Dimness of sight came on three days ago;—but he can read small type. Vascularity slight, lower part of cornea hazy.—*Ad Palpeb. dext. hirud. vi.—Sumt. vesp. pulv. Doveri gr. viii. et ter in die vini colchici* ℥*ss.*

Dec. 2. Redness increased; cornea clearer; no pain; but epiphora.
4*th.* Cornea nearly clear, redness much less; vision nearly perfect.
6*th.* Redness increased; pain of eye came on last night.—*Appl. ad. palpeb. dext. hirud. iv.*
7*th.* Pain gone; eyeball soft.
10*th.* Epiphora.—*Vesic. ad. temp. dext.*—*Collyr. mur. Hydrarg.*—*Gtt. sol. ad nitr. arg. gr. x. ℥i.*
24*th.* Inflammation nearly gone; eyeball still somewhat soft.—*Vesic. pone. aurem dext.*
Jan. 4*th.* An attack of pustular ophthalmia, with pain of eyeball.—*Ad. palpeb. dext. hirud. iv.*—*Cap. sulph. magn. ℥ss.*
13*th.* Vitreous humour muddy.
18*th.* Epiphora and nebula of cornea continue.

Case 9. *Postfebrile Ophthalmitis, partaking of the character of Scrofulous Iritis. Danger of too soon suspending the Mercurial treatment.*—13398.—David Young, aged 11, November 4, 1843, was seized with fever eight weeks ago, and relapsed subsequently. Right eye began at the outset of the fever to be affected with nocturnal pain, and daily increasing dimness of vision. There is now no pain, but considerable intolerance, and he can with this eye just distinguish a pin. Sclerotic faintly vascular; iris greenish, pupil much contracted, and immoveable. Cornea very nebulous, and vascular at edges. Bowels slow; pulse 120, weak.—*Bellad. ad palp.*—*Sum.* 8*va q. q. h. pil. calom. et opii.*
5*th.* Pupil nearly of natural size; intolerance much diminished.
6*th.* Cornea clear; pupil larger; mouth touched.
7*th.* Redness gone; pupil large.
8*th.* Iris nearly of natural colour; can read large type.
10*th.* Can read small type.—*Om. pil.*
16*th.* Vision more imperfect; mouth still slightly sore.
29*th.* *Sum. solut. Lugolis. gtt. xx. ter in die.*
Dec. 18*th.* Iodine disagreed, and was stopped a week ago; no change.—*Sumt. sol. arsenicalis gtt. iij. ter in die.*
Feb. 11*th.* Has not attended; pupil very muddy, and contracted; iris discoloured, and of a greenish brown; cornea nebulous.—*Omit. sol. arsenicalis; Capt. pil. Plummeri omne nocte.*
15*th.* Improved in all respects; vision much clearer, and iris more natural.

Case 10. *Postfebrile Ophthalmitis, with Opacity deep in the Eye, and almost total extinction of vision, without redness.*—13650.—Andrew M'Glin, aged 55; January 24, 1844; lost left eye in consequence of a blow with a stone two years and a half ago; and right eye has since been weak. Last summer its vision was misty.
Recovered three weeks ago from relapse after fever, and from that time vision has become worse; he has had occasional slight circumorbital pain and can now just see the light.
There is no redness of the eye; the cornea is muddy; the pupil is considerably dilated and insensible, and there is seen in its centre, and deep in the eye, a whitish opacity; considerable debility.
No amelioration resulted from treatment by moderate depletion and mercurialization.

Case 11. *Postfebrile Ophthalmitis of right eye, cured. Vision pretty good at close of treatment. Re-admission in six months with amaurosis of both eyes.*—4141. James Brodie, aged 60. July 3, 1844. Recovered from fever in November last. Right eye has since been inflamed, at first remittingly. Cannot now distinguish the fingers; redness slight; pain not severe. Left eye weak.—*V.S.*—*Bellad. ad palp.*—*Vesp. pulv. purgans.*
5*th.* Pain less; redness all but gone; pupil dilated.—*Pil. cal. and opii ter in die.*
8*th.* Pain and redness gone. Vision as before.

10*th*. Mouth sore.—*Omitt. pil.*

15*th*. No objective symptom. Can nearly read large type.

14645. Feb. 13, 1845. Re-admitted under Dr Mackenzie. Both pupils now very sluggish and small, but irides of a natural colour. Both deep images enlarged; but eye-balls of natural consistence. With neither eye can he read the numbers on tickets. Complains of muscæ volitantes, in increasing numbers, and has a dull pain in forehead. Smokes. Tongue clean; pulse natural; appetite indifferent.

Case 12. *Postfebrile Ophthalmitis affecting both eyes; pain intermitting, with rigors and perspiration.*—13406. Flora Bow, aged 44. Nov. 8, 1843. Was seized with epidemic fever two months ago, and having convalesced about a fortnight before present date, has since complained of weakness of eyes. With the right eye she can read the large type, though there are muscæ always before it: with the left she can distinguish only the numbers on tickets. The left eye has been painful for two days; an accession of pain occurring morning and evening, preceded by rigors, and followed by sweating. Pupil of right eye sluggish; cornea surrounded by a faint pink zone. Did not return.—*Dismissed irregular.*

Case 13. *Postfebrile Ophthalmia. Chief symptom ulcer of the cornea. Cure by local remedies.*—13436. George Cox, aged 36. Nov. 21, 1843. Convalesced a week ago from fever. Says that right eye has been weak since exposure to cold early in the fever, and that he had circumorbital pain, which has now disappeared. Can read large type. An ulcer near the centre of cornea, vascular at edges, and opaque at bottom. Bowels costive.—*Gtt. sol. nit. arg. gr. x. ad* ℥*j.*—*Sum. sulph. mag.* ℥*ss.*

22*d*. *Gtt. sol. nit. arg. gr. xxx. ad* ℥*j 3tia q. q. die.*—*Ut collyr. mur. hyd. et ung. precip. rubri.*

24*th*. Ulcer filling up.

27*th*. Ulcer filled with white lymph.

29*th*. Cornea round ulcer still vascular and hazy.—*Ut. ung. cyanidis zinci* ℥*ss. ad* ℥*j.*

Dec. 10. Ulcer healed.

Case 14. *Ophthalmitis postfebrilis; with ulceration of the substance of cornea, and conjunctival and tarsal irritation. Cure.*—14555. James Morison, aged 55. Jan. 4, 1845. Had fever a year ago, and this was soon followed by asthenopia, and then by slight amaurosis of both eyes. With the right eye cannot make out small type: the left eye has been inflamed for three weeks, and its vision is worse. It is very red; there are two clear, deep, irregular ulcers on cornea, and pupil is muddy; considerable pain.—*Bellad. ad palpeb.*—*C.C. ad tempus ad* ℥*viii. Sum. vesp. pulv. purg.*—*c.m. Sulph. mag.* ℥*j.*

5*th*. Severe pain last night. To-day a good deal of conjunctival and tarsal irritation.—*V.S.*—*Sum. pil. cal. et opii i. 8va. q. q. h.*

6*th*. ℥xiv. of blood; clot soft; pain nearly gone; much tarsal inflammation and swelling. Epiphora.

7*th*. Some pain last night.—*Rep. C.C. ad* ℥*vi.*—*Sum. ext. bellad. gr. ss. ter in die.*

8*th*. Epiphora less; pain gone.

9*th*. Much purged.—*Omitt. med. Sum. opii gr. i.*

10*th*. Gums touched; conjunctival irritation less.—*Sum. 8va. q. q. h. Pil. hyd. gr. v. Pulv. opii gr. ss.*—*Rep. C.C.*

14*th*. Improves.—*Vesic. ad tempora.*

17*th*. Iris of natural colour.

23*d*. Ulcer healed; inflammation gone.

Case 15. *Postfebrile Ophthalmitis; with onyx, and sloughing of cornea.*—13580. Janet Darling, aged 37. Jan. 2, 1844. Was seized with fever a month ago, and has for eight days been convalescent from relapse. At first convalescence complained of pain in and around right eye, and the inflammation of that eye has since been increasing. An onyx occupies the lower three-fourths o

cornea, which has ulcerated towards the nasal edge; the pupil can be seen by looking downwards over the upper edge of the opacity. Pain so severe as to prevent sleep. Conjunctiva turgid close to cornea. Is pale and feeble.—*Did not wait for the medicines ordered.*

3*d*. Onyx more extensive.—*Belladonna ad palpebras. Hirud. vi.*

4*th*. Pain less; cornea still more opaque.

5*th*. Cornea has sloughed.

Case 16. *Postfebrile Ophthalmitis, with lymphy effusion into anterior chamber. Use of mercury and belladonna. Cure.*—13600. Archibald Kean, aged 18. Jan. 9, 1844. Recovered about six weeks ago from relapse after fever. Five days previous to admission a musca appeared before left eye; while he has had pain in the eye for two days. He now sees merely the light, although the musca is still perceived. There is some tenderness of eye-ball, and moderate vascularity, chiefly sclerotic. The (grey) iris has become greenish; the pupil is contracted and sluggish; and there is a small onyx at lower edge of cornea, while the effusion of a minute quantity of lymph renders the edge of the pupil cloudy. Pulse rather feeble.—*V.S.—Bellad. ad palp.—Sum. vesp. pulv. purg.* ℈*j. c. m. sulph. mag.* ℥*j.*

10*th*. ℥viii. of blood drawn; clot soft, and covered with a gelatinous buff; onyx gone, but lower half of aqueous humour muddy; pupil moderately dilated; pain less; no tenderness.—*Rep. med. et sum. vini colch.* ℥*ss. 8va. q. q. h.*

11*th*. Can read large type.—*Rep. sulph. mag.*

12*th*. Mouth sore; onyx gone; veins of sclerotica gorged. There is still pain and intolerance of light.—*Sum. 8va. q. q. h. Extr. bellad. gr. ss.*

14*th*. Reads small type easily; iris still darkish, and pupil somewhat sluggish; redness less.—*Ceased to attend.*

Case 17. *Postfebrile Ophthalmitis, with opaque spots on the aqueous membrane, and vascularity of the iris.—Mercurialization.—Cure.*—13417. Joseph Carbrae, aged 20. November 13, 1843. Was seized with epidemic fever a month ago. After a week's illness, and half that period of remission, relapsed, and had a second attack. Eight days after, he began to complain of dimness of vision of right eye. He has for five days had ocular pain, worst at night, and can now read just the large type. Considerable vascularity; cornea hazy; its lining membrane speckled with lymph inferiorly. The originally brown iris is darkened, the pupil irregular, and fixed to capsule by two tags. Pulse feeble; bowels free.—*Bellad. ad palp.—Sumt. ter in die pil. cal. et opii.*

16*th*, Iris darker.—*Sumt. pil. 6ta q. q. h.*

18*th*, The tags of the pupil are vascular.

19*th*, Pain more severe; lower part of iris vascular. Bowels costive. Mouth sore.—*Sumt. pil. m. et v. tantum.*

20*th*, Pain gone. Reads small type easily. Cornea nearly clear. *Sumt. pil. vesp. tantum.*

22*d*, Pupil larger, and somewhat sensitive.

26*th*, Iris nearly of natural colour. Lower part of aqueous capsule still speckled. Redness of sclerotic nearly gone. *Omitt. pil.—Sumt. iod. potass. gr. v. ter in die.*

Dec. 3*d*, Vision nearly perfect. Two stools daily. Cornea flexible.

10*th*, Cornea less flexible; still somewhat speckled on inner surface. Vision perfect.

17*th*, Specks on cornea all but gone.

25*th*, Cornea clear. Tags of pupil continue.

Dismissed cured.

Case 18. *Very severe Postfebrile Ophthalmitis, with affection of the aqueous capsule, yielding reluctantly to repeated depletion and mercury.*—13628. James Laidlaw, aged 24. Jan. 17, 1844. Left eye has been atrophic since an injury received when four years old.

Recovered four months ago from relapse after fever, and two months there-

after he began to perceive muscae before right eye. Last evening redness, supraocular pain, and tenderness of eyeball came on. Could read small type till yesterday. The eyeball is firm; vascularity moderate; iris greenish; pupil sluggish and muddy; a small onyx at lower edge of cornea.—*V. S. Pulv. purg. vesp.—c. m. Sulph. mag. ℥i. Bellad ad palp.*

18*th*, Sixteen ounces of blood, clot sizy, loose and dark. Pain very slight. Pupil widely dilated and muddy.—*Ad palp. dext hirud. vi.—Sumt. ter in die pil. cal. et opii.*

19*th*, Onyx nearly gone. Pain of eye.—*Rep. hirud.—Sumt. pil. 6ta q. q. h. sumt. quoque vini colchici gtt. xl. ter in die.*

20*th*, Pain less. Lower half of lining membrane of cornea muddy, with a patch of lymph on its surface.

21*st*, Pain increased. Aqueous membrane still muddy, and covered with fine vertical streaks. Iris green. Considerable epiphora, but moderate redness. Mouth scarcely touched.—*Rep. V.S.—Sumt. sulph. mag. ℥ss. statim; vesp. pulv. Doveri gr. viii.*

22*d*, Aqueous capsule clearer. Pain all but gone.—*Rep. hirud. et bellad.*

23*d*, Can distinguish the fingers. Aqueous humour clear. Gums touched. *Sumt. pil. ter in die.*

24*th*, Aqueous humour again muddy; iris greenish, and pupil still contracted. Sclerotic redness rather livid. Bowels costive.— *Om. Medr. sumt. Sulph. Mag. ℥ss. et sumt. ter in die pil. hyd. gr. v.; ext. colch. gr. i.; ext. bellad. gr. ss.; bellad. et palpebras.*

25*th*, Pupil somewhat dilated. Lower part of iris presents a bloody patch. Throbbing pain of temples continues.—*Ad tempus hirud. viii.*

26*th*, Pain less; red spot on iris gone. Lower part of aqueous capsule again muddy.— *Vesp. pulv. Dov. gr. x.*

27*th*, *Rep. pulv. Doveri. cont alia.*

28*th*, *Vesic. pone aurem dext.*

29*th*, No change in the eye. Mouth sore.— *Omitt pil. Rep. pulv. Dov.*

Feb. 2*d*, *Rep. V.S. et Bellad. ad palp. et vesic. Capt. subm. Hyd. gr. i. 8va. q. q. h.*

3*d*, Blood buffy. Pain less.

5*th*, Says vision improved.

8*th*, Right pupil very irregular.— *Omitt. pulv.; Capt. 8va. q. q. h. Pil. cal. et opii.*

9*th*, *C. C. ad temp. dext.*

10*th*, Ten ounces of blood. Mouth not now sore.

17*th*, Mouth affected.—*Rep. vesic.*

27*th*, Pupil dilated widely.— *Omitt. bellad.*

March 3*d*, Vision clearer.

24*th*, Much improved.— *Om. pil.*

Case 19. *Postfebrile Ophthalmitis, accompanied with dilatation and insensibility of pupil, with slight amaurotic symptoms. Use of Dover's powder. Cure.*— 13424. William Kean, aged 23. Nov. 15, 1843. Convalesced about three weeks ago from relapse after fever; and having since been exposed to cold, began about eleven days ago to observe muscae before left eye, vision with which soon became generally dim. He can at present just make out the small type. Slight supraocular pain. Pupil large, and nearly immovable. Tongue clean. Bowels free.—*Sulph. mag. ℥i.*

16*th*, Reads the small type easily. Pain gone.—*Sumt. ter in die Pulv. ipec. co. gr. x.*

17*th*, *Sumt. pulv. 6ta q. q. h.*

19*th*, Three stools; muscae fewer.—*Sumt. pulv. 3tia q. q. h.*

21*st*, One stool.

24*th*, Pupil smaller and more sensitive. One stool.—*Sumt. pulv. 4ta q. q. h.*

28*th*, Vision nearly perfect.— *Omitt. pulv.*

Dec 3*d*, Objective symptoms gone.

Dismissed cured.

Case 20. *Postfebrile Ophthalmitis without contraction of the pupil, followed by an affection of the retina alone of the other eye. Cure by venesection and mercury.*—13529. Helen Kean, aged 20, Dec. 17, 1843. Recovered six weeks ago from third relapse after fever; and eight days before present date, began to perceive muscae before right eye. They have now disappeared, but vision is so dim, that she can scarcely read the large type. Slight temporal pain, and much tenderness of upper and outer parts of eyeball, which are vascular. Both pupils large, the right sluggish.—*Hirud. vi. ad palp.; sumt. stat. pulv. purg.* ℈*i. Vespere sulph. mag.* ℥*ss.*

18*th*, No change.—*V. S.; sumt. vespere pulv. ipec. co. gr. xii.; Bellad ad palp.*

19*th*, Eight ounces of blood; clot rather small. Pupil excessively dilated. Pain gone.—*Sumt. m. et v. pil. hyd.*

24*th*, Vascularity of right eye gone, and vision perfect. Has for a day or two complained of dimness of sight and photopsia with left eye, without pain or any objective symptom.—*Hirud. iv. ad palp. sinist.*

25*th*, Photopsia gone.—*Sumt. pil. vesp. tantum.*

Case 21. *Postfebrile Ophthalmitis illustrating the effects of the disease on the contractility of the pupil.—Cure by mercury.*—14036. Mary Corrigan, aged 9, June 2, 1844. Had fever last autumn, and 10 days ago complained of right eye being painful. The vision has for four days been so dim that she cannot distinguish the fingers,—redness moderate, iris darkish, pupil dim and small,—*Hirud. vi. ad temp. dext. Pulv. purg. gr. xv. Belladonna ad palp.*

4*th*, Redness much less; can distinguish the end of a pen; pupil still small but clearer. *Rep. Hirud. iij. Pulv. purg. gr. xii.*

6*th*, *Sumt. m. et v. pil. Hyd.*

13*th*, Gums touched, pupils larger.—*Vesic ad tempus. Sumt. pil.* 2 *da q. q. nocte tantum.*

17*th*, *Rep. vesic.*

19*th*, Says vision is nearly perfect. Objective symptom gone, except that the pupil is still rather small.—*Bellad. ad palp. oculi utriusque.*

20*th*, Pupils dilated, but the right least so.

22*d*, Says she sees quite well. *Dismissed cured.*

Case 22. *Postfebrile Ophthalmitis neglected, ending in vascularity and opacity of cornea, and choroid staphyloma.*—13997. Mary Sutherland, aged 21, May 19, 1844. Had fever in last July; in January vision of right eye began to fail, and she had severe rheumatic pains in limbs. The eye has for six weeks been inflamed and neglected. Eyeball and all cornea except the opaque and yellow centre, vividly red, and a protrusion of the choroid coat has taken place at lower part of eyeball. The pain, previously severe, relieved since a purgative was given. Mouth slightly touched with mercury.—*Ad tempus dext. Hirud. vi. Sumt. pulv. Doveri g. x. Calom. g. iij v.*

23*d*, *Rep. pulv. et habt c. m. sulph. mag.* ℥*i.*

25*th*, Complains of hemicrania. *Rep. pulv.*

June 2*d*, Inflammation much diminished, protrusion gone, and lower part of eyeball shrunk.

9*th*, Cornea shrunk, and no longer vascular. Photopsia, but no perception of light. *Vesic. ad tempus.*

20*th*, Eyeball more shrunk. Just perceives the light.

Case 23. *Postfebrile Ophthalmitis—at first neglected, ending in a chroni sclerotico-choroiditis—cure.* 13968. Helen Burns, aged 33, May 7, 1844. Had fever last July; in the beginning of January left eye became affected with pain and failure of vision, and right eye so in a less degree. The latter is now well, but with the left she cannot read small type. The sclerotic immediately surrounding the cornea is unnaturally prominent, and of a dingy pink colour; the pupil bound by several tags to the capsule. Pain only occasional. *Bellad. ad palp. Sumt. ter in die Pil. cal. et opii.*

24*th*, Pain gone; eye improves; gums touched.

14*th* June. The sclerotica is thinner around the cornea, and still vascular; but she can read small type. *Omitt. pilul. Hirud. ij. palp. inf.*

30*th*, Eye continues to present the appearance peculiar to chronic sclerotico-choroiditis; the edge of the cornea is overlapped by an opacity of various breadth. *Sumt. ter in die iod. potassii. gr. v.*

July 17, Inflammation somewhat diminished.

Dec. 10, Inflammation gone. Eye natural, except an albugo on cornea, which is contracted in diameter.

Case 24. *Postfebrile Ophthalmitis, with development of vessels on capsule—Cure, vision nearly restored.* 13396. Daniel Macallister, aged 44, Nov. 3, 1844. Has had epidemic fever, accompanied by severe rheumatic pains, and followed by a relapse, from which he was convalescent ten weeks ago. Ten days before the present date, after a wetting, a musca appeared before left eye, and in four days inflammation of that eye came on. He can now read the numbers on tickets, and has much pain, chiefly at night. The eyeball is very red; the cornea cloudy, with the marginal white line; the (hazel) iris darkened, the pupil irregular, muddy, sluggish, and with a brownish red fringe-like border. Bowels free; pulse 60. *V. S.; Bellad. ad palp.; sumt. pulv. purg.*

4*th*, Clot of blood large and soft. Pain less. The pupil being somewhat dilated, the brownish fringe is seen to be composed of a dense wreath of looping vessels lying on the anterior capsule of the lens all round its edge. *Sumt. vini colchici gtt. xxx ter in die.*

8*th*, Has taken latterly ℥j three times daily, without benefit. The pupil is now widely dilated, showing the vessels more distinctly. *Omitt. colch. et sumt. 6ta q. q. h. pilulam. cal. et opii.*

10*th*, Mouth touched.

12*th*, Mouth sore; eyeball much less red, and cornea clearing. Pain less; vision improved. *Omitt. pilul.; sumt. sulph. mag. ℥j.*

14*th*, Can read large type. Cornea and pupil clear, and the latter of better shape. Iris of natural colour. Vascular wreath less dense.

20*th*, Inflammation gone, and pupil regular; vision improved. *Rep. sulph. mag.*

21*st*, *Sumt. ter in die iodid. potass. gr. vii.*

Dec 3, Has occasional photopsia; pupil lively.

17*th*, Vision continues to improve, but he cannot yet read small type. Looping vessels still seen on the capsule when the iris is withdrawn by belladonna.

Case 25. *Postfebrile Ophthalmitis with affection of the capsule, lens, and vitreous humour, and photopsia.—Cure.*—13624. Janet Burnet, aged 28, Jan. 16, 1844. Recovered about a month ago from relapse after fever, and in a week began to perceive luminous flashes before left eye; and in four days, having begun to work, the eye became painful. The photopsia continues, and she cannot read numbers on tickets. The eyeball is firm, and slightly reddened around cornea; the (grey) iris is somewhat greenish, the pupil sensitive, though rather small; the anterior capsule muddy, and presenting looping vessels around its circumference; pain slight and occasional; has been leeched.—*Ad. palp. sinist. hirud. vi.; postta. bellad. Sumt. vesp. pulv. purg.; c. m. sulph. mag. ℥ss.*

18*th*. Pupil irregularly dilated.—*Sumt. ter in die pil. cal. et opii.*

20*th*. Can read numbers on tickets; pupil clear, but vitreous body muddy. Still faint rosiness of sclerotic.

22*d*. Iris still greenish.

26*th*. No objective symptom except the irregularity of the pupil, and vascularity of the capsule; mouth sore.—*Omitt. pil.; sumt. sulph. magn. ℥ss.*

29*th*. Vision improves.—*Rep. sulph. magn.*

Feb. 5*th*. Reads the large type, but is troubled with muscæ before left eye.—*Sumt. iodid. potass. gr.v. ter in die.*

10*th*. Only one musca now seen.

19*th*. Musca much thinner, and seen to the left of field of view.

Dismissed cured.

Case 26. *Postfebrile Ophthalmitis,—showing the bad effects of irregular treatment.—Permanent opacity of capsule.*—13979. Elizabeth Gibson, aged 39, May 13, 1844. Recovered from fever two months ago. In three weeks muscæ appeared before right eye, which became painful a fortnight ago. There are now photopsia and blueish green muscæ, and she sees merely the light. No objective symptom, but moderate redness.—*Palp. bellad.—V.S.—Ad pulv. purg. vesp. c. m. sulph. mag.* ℥ss.

14*th.* Ten oz. of blood, not buffy; pupil dilated, with one tag.—*Sumt. pil. cal. et opii. ter in die.*

18*th.* Gums touched; pain increased.—*Hirud. iv. ad palp. dext.*

June 18*th.* Has not attended; got cold while mouth sore; the inflammation continues; iris greenish, pupil contracted and dim; pain severe at night.—*V.S. Bellad. ad palp.—Ol. ric.* ℥*j.*

19*th.* Twelve oz. of blood, buffy; pain continues.—*Ad temp. dext. hirud vi. Sumt. vini. colch.* ℥ss. *ter in die.*

20*th.* Did not wait to be leeched; pain continues.—*V.S.*

21*st.* ℥xiv of blood; buffy.

22*d.* Pain undiminished;slight hypopium.—*Ad temp. dext. hirud. vi. Sumt. pil. cal. et opii. m. et v.*

25*th.* Pain continues.—*C. C. ad tempus.*

27*th.* Did not wait; intense pain continues.—*C. C.*

29*th.* ℥vi of blood obtained; pain less.—*Palp. hirud. vi.*

30*th.* Pain gone.

July 5*th.* No pain; still some redness; pupil contracted, capsule opaque; iris bulges forwards.—*Pone aurem. vesic. Sumt. iod. pot. gr.v. ter in die. Omitt. pil.*

10*th.* Some pain.—*Angulæ int. oculi. hirud. iv.*

12*th.* No pain; redness nearly gone.

Aug. 11*th.* Cannot read letters an inch long.

Case 27. *Postfebrile Ophthalmitis, with (?) an opacity of posterior pole of lens.*—13437. John M'Bride, aged 52, Nov. 21, 1844. Recovered a fortnight ago from second relapse after fever. During one of these attacks vision of both eyes became dim, and now he can with the right eye distinguish the fingers, with the left make out the numbers on the tickets. A red mist seems to hang before his eyes. There is no pain, and no objective symptom, except sluggishness of right pupil. Has been deaf since fever.—*Bellad. ad palp.*

22*d.* The pupils being fully dilated, there is now seen in the centre of each, but deeply seated, a squarish opaque spot, as of a patch of lymph on the posterior pole of the lens. The form of the spot much resembles that of the cellular union of the fibres in the posterior pole, as delineated by Henle.—*Sumt. pil. cal. et opii j. ter in die.*

27*th.* Mouth sore.—*Omitt. pil.*

Dec. 2*d.* No change in appearance of eye.

Did not return.

Case 28. *Postfebrile Ophthalmitis, with lenticular opacity; catoptric test.*—14055. John Bryson, aged 30, June 10, 1844. Recovered three months ago from fever, and has ever since perceived muscæ before right eye. A week ago the eye became inflamed, and the blindness has increased till he cannot now distinguish between the fingers; pain severe, but redness moderate; pupil muddy and sluggish.—*V.S.—pulv. purg.* ℥*i.; vesp. c. m. sulph. magn.* ℥*i.; bellad. ad palp.*

12*th.* ℥xvi of blood; clot buffy; pain nearly gone, and pupil is larger, but somewhat glaucomatous; deep erect image of a candle not visible; inverted image large and confused.—*Hirud. vi ad temp. dext. M. Sum. ter in die pil. cal. et opii.*

15*th.* Pain gone; mouth sore; can read numbers on tickets.

Case 29. *Postfebrile Ophthalmitis, with opacity of the lens, and of the vitreous body. Catoptric test.*—14083. Richard M'Intyre, aged 34, June 17, 1844. Re-

covered from fever three months ago, and vision of left eye has ever since been dim; but there was no inflammation till eight days before present date. He can now merely see the light; there is considerable vascularity of the eyeball; the pupil is irregular and muddy; no inverted image seen on using the catoptric test.— *V. S.—bellad. ad. palp.—sum. pil. cal. et opii i. ter in die.*

18*th*. Did not wait to be bled. There is now slight onyx at lower edge of cornea.— *V. S.*

19*th*. ℥xiv. of blood; clot buffy; pain less; pupil more sensitive; inverted image large and obscure; deep erect image also obscure and diffused.—*Ad temp. sinist. hirud. vi.*

20*th*. Pain less; can count the fingers.— *Vesic. ad tempus.*

21*st*. Can read numbers on the tickets.

26*th*. Mouth sore; pupil nearly clear; still slight onyx.—*Ad angul. int. oculi Hirud. vi. Omitt. pil.*

29*th*. Pain gone; redness much less; can read large type.— *Vesic. ad tempus. Bellad. ad palp. oc. utr.*

30*th*. Left pupil more dilated; a white moveable opacity floats to nasal side of vitreous body.

Case 30. *Postfebrile Ophthalmitis, with a ring of lymph on capsule, opacity of the lens, and an opaque body in the vitreous humour; catoptric test. Vision in great part restored.* 13998. Alexander Macneil, aged 18, May 20, 1844. Convalesced in December from relapse after second attack of fever. Eight days ago first observed dimness of vision of left eye, which was followed by inflammation. Has been bled, leeched, and mercurialized, and mouth is now very sore. There is considerable vascularity; the iris is green, and the pupil bordered by a ring of lymph upon the muddy capsule; has not much pain, but can just distinguish the light.—*Belladon. ad palp.; hirud. vi. ad tempus.*

21*st*. Pupil somewhat dilated; can distinguish the fingers.

22*d*. Pupil much clearer; bowels costive.—*Sulph. Mag.* ℥*i*.

23*d*. Pain occasional only; no deep image can yet be perceived on applying the catoptric test.— *Vesic. ad tempus.*

24*th*. Pain less; pupil clearer, so that an opaque body can be seen floating deep in the vitreous humour; inverted image visible, but indistinct.

29*th*. *Rep. vesic. sumt. potass. iod. gr. v. ter in die.*

June 11. Can read numbers on tickets.

Case 31. *Postfebrile Ophthalmitis affecting an eye which had suffered after typhus. Myopia. Deep-seated opacity. Restoration to state previous to attack.* —13629. William Fletcher, aged 19, January 17, 1844. Recovered six weeks ago from relapse after fever. Right eye has been weak, and has had muscæ before it since typhus fever two years ago. Eight days after last convalescence vision became worse, with photopsia; and now he can just perceive the light. There are inflammatory redness with ocular pain and tenderness of five days' standing. Eyeball firm; iris greenish; pupil fixed, contracted and muddy. Slight onyx at lower edge of cornea. Pulse weak.—*Ad palp. dext. hirud. viii., sumt. vesp. pulv. purg.* ℈*i. et c. m. sulph. mag.* ℥*i., bellad. ad palp.*

18*th*. Pain less. Onyx gone.—*Rep. medic.*

19*th*. Pupil larger. Otherwise no change.—*Rep. hirud. et sumt. ter in die pil. cal. et opii.*

20*th*. Epiphora.—*Sumt. ter in die ext. colch. gr. i. ext. bellad. gr. ss.*

22*d*. Pain and epiphora gone. Debility. Can make out large type if placed within four inches of eye. Redness less; pupil clearer. Gums touched— *Sumt. pil. cal. et opii m. et v. tantum.*

24*th*. The pupil being now clear, a longish opacity is seen at the bottom of the eye. Reads to-day with ease at the ordinary distance. Gums sore. Redness less.—*Sumt. pil. vesp. tantum.*

26*th*. *Sumt. pil. 2da q. q. nocte.*

27*th*. Redness nearly gone. Iris of natural colour, and more sensitive. Opacity deep in eye much less distinguishable. Vision as at last report.

February 6. Vision improved.
March 5. Complains only of muscæ before eye.—*Omitt. pil.*

Case 32. *Postfebrile Ophthalmitis, affecting both eyes; opacities of capsule and lens. Myopia. Cure by mercury and depletion.*—14008. Hugh Macpherson, aged 19, May 23, 1844. Recovered from fever three months ago, and for a month vision of left eye has been dim. He can now make out the numbers on tickets. Has had pain for four days. There is considerable redness; the cornea is dull, and presents a small onyx at lower margin. Iris greenish; pupil small and muddy.—*V.S. bellad. ad palp.; pulv. purg. vesp.; c. m. sulph. mag.* ℥*i.*
24*th.* ℥xii. of blood; not buffy.—*Rep. medicam.*
25*th.* Pain less, cornea clear, and onyx gone. Pupil seen to be bordered by a ring of lymph —*Sumt. ter in die pilul. cal. et opii.*
27*th.* Gums touched. Some redness of right eye.—*Sulph. mag.* ℥*ss.*
28*th. Vesic. ad tempus sinist.*
30*th.* Left pupil nearly clear; redness of right eye increased; sees best with left eye.
June 1. Nocturnal pain of right eye.—*Hirud. vi. ad palp. dext.*
3*d.* Pain gone.
4*th.* With right eye cannot distinguish the fingers.—*Rep. V.S.*
6*th.* ℥vii. of blood; not buffy. With left eye can read small type. Right pupil contracted; and there is a small onyx at the lower edge of cornea. Pain less.—*Rep. hirud.*
7*th.* Pain gone.—*Rep. sulph. mag.*
10*th.* With right eye distinguishes the fingers; onyx gone.—*Resp. hirud. et sulph. mag.*
11*th. Vesic. ad temp. dext.*
12*th. Sumt. pilulam m. et v. tant; sumt. quoque iod. pot. gr. v. ter in die.*
13*th.* Can count the fingers with the right eye. Pupil larger, and with two tags. On applying the catoptric test, the inverted image is seen large and muddy. The eye presents a slightly glaucomatous aspect.
14*th.* Can read numbers on tickets.
15*th.* Says that he sees best in the morning.
18*th.* Inflammation much diminished; reads large type.—*Rep. vesic. ad tempus dext.*
20*th.* Myopia of right eye, the pupil of which is smaller than that of the left, but clearer. Both deep images distinct and clear.—*Bellad. ad palp. dext. et sinist.*
21*st.* Both pupils equally dilated.
27*th.* Inflammation and pain gone. Can read small type with both eyes; but there is a slight muscæ before the right. No objective symptom. Pupils equal. Myopia nearly gone.—*Omitt. pil.*—*Dismissed cured.*

Case 33. *Postfebrile Ophthalmitis; lenticular opacity—catoptric test; subsequent myopia—cure.*—14114. Francis M'Manus, aged 38, June 26, 1844. Had fever in December, and no affection of eyes till a fortnight ago, when vision of the left began to be dim; and in four days inflammation came on. He cannot now distinguish the fingers; there is considerable redness; iris darkened; pupil large, irregular, insensible, and muddy. No deep erect image to be seen on applying the catoptric test, inverted image scarcely visible.—*V.S.—pulv. purg.* ℈*i. vesp. Sumt. c. m. sulph. mag.* ℥*i.*
27*th.* ℥xvi of blood, clot not buffy; can make out the numbers on tickets; redness less; pain gone.—*Angul. int. oc. hirud. vi. Bellad. ad palp. Sumt. pil. cal. et opii. i. 8va. q. q. h.*
28*th.* Can read large type; increased pain last night.—*Rep. hirud. Sumt. ext. colchici. acet. gr. iij. 8va. q. q. h. Cont. pil.*
29*th.* Pain much less; both images distinct.—*Vesic. pone aurem sinist.*
30*th.* Vision improves, but pain increased; no stool.—*Rep. sulph. magn. Sumt. vesp. pulv. Doveri.*
July 1*st.* Pain still severe at night.—*Hirud. iv. ad tempus.*

3*d*. Can read small type; pain continues at night.—*Ol. ric.* ℥*i.; vesp. rep. pulv. Doveri.*

4*th*. Pain all but gone.—*Sumt. pilul. cal. et opii. mane et vesp. tantum. Repr. vesic.*

6*th*. Pain gone.—*Omt. medic.*

8*th*. Redness gone; reads small type easily, complaining only of slight general dimness of vision. Left eye myopic; he cannot make out distant objects; pupil of this eye is smaller than the other, but there is no difference between the eyes in point of firmness, or convexity of the cornea, whether judged of by looking at it in profile, or by comparing the images of a candle on each cornea. —*Bellad. ad palp oc. utriusqu.*

9*th*. Right pupil most dilated; myopia less:—*Ablue bellad.*

10*th*. Left pupil of natural size, right still dilated. The interposition before the right eye of a diaphragm, with an aperture of the same diameter as the left pupil, does not affect the adaptive power of the eye.

11*th*. *Vesic. ad tempus.*

22*d*. Vision perfect at the normal distance; left pupil still the smaller.

Dismissed cured.

Case 34. *Postfebrile Opthalmitis, with softness of eyeball, and myopia—cure.* —13647. Margaret Donochie, aged 18, Jan. 23, 1844. Since recovery, three weeks ago, from relapse after fever, has had much weakness, some œdema of feet, and epiphora of both eyes. Was exposed to cold two days ago, and yesterday morning began to see dimly with left eye, which became painful a few hours after. There is some tenderness of eyeball, which is somewhat softer than the other, and the sclerotic is rosy. Pupil sensitive; surface of iris dull; can read small type easily, but only when placed within four inches of eye; pulse feeble.—*Hirud. vi. ad palpebras. Sumt. sulph. magn.* ℥*i.*

24*th*. *Sumt. ter in die pil. cal, et opii.*

30*th*. Mouth sore; reads at the usual distance, and there are no muscæ: eyeball firm.—*Vesic. ad tempus. Omit. pil.*

Case 35. *Postfebrile Ophthalmitis; photopsia—Successful treatment by depletion, mercury, and colchicum—subsequent myopia.*—13635. Elizabeth Anderson, aged 15, Jan. 19, 1844. Recovered three months ago from relapse after fever. Two days before admission became affected with epiphora of right eye, with ocular and supraorbital pain. The eyeball is now soft and tender, and there is considerable sclerotic and some conjunctival redness. Was troubled at first with muscae volitantes, which now no longer exist; but she has had photopsia for two or three days back. Can just read numbers on tickets. The grey iris is slightly darkened, the pupil sluggish and dim; pulse quick, and rather weak. —*V.S.; bellad. ad palp. Sumt. vesp. pulv. purg., c. m. sulph. mag.* ℥*i.*

20*th*. ℥xii of blood; clot large, dark and soft; pain not relieved, but photopsia gone; redness less, and pupil of moderate size.—*Sumt. ter in die pil. hyd. gr.iv, Ext. colch. gr.i, Pulv. opii. gr.ss. Hirud. iv. ad palp. dextri.*

21*st*. Pain nearly gone; veins of sclerotic congested; no stool.

22*d*. Mouth affected; pupil clearer; reads numbers on tickets easily.—*Sumt. pil. vesp. tantum et ter in die vini colch. gtts. xxv.*

23*d*. Can just read large type; mouth sore.—*Omitt. pil.*

25*th*. Sclerotic congestion nearly gone, but minute vascularity continues; pupil clear.

26*th*. Reads large type easily; redness less; eyeball pretty firm, pain gone.—*Omitt. colch.; Sumt. sulph. mag.* ℥*ss.*

29*th*. Reads small type; sclerotic still slightly red; general dimness of vision, but no muscae.—*Rep. sulph. mag.*

30*th*. Some myopia.—*Vesic. ad temp. dext.*

Feb. 3*d*. Continues to improve.

Case 36. *Postfebrile Ophthalmitis, with softening of eyeball. Mercury and colchicum administered. The eyeball becomes firm. Cure.*—13479. Ronald

M'Donald, aged 30. December 1, 1843. Convalesced about two months ago from relapse after fever; and about a fortnight subsequently, having been exposed to cold, began to complain of hazy vision with left eye. A musca has been for a week back perceived on the field of view. There is no pain, and slight redness; the gray iris is unchanged in colour, but the eyeball soft. He can nearly make out the large type.—*V. S.; sumt. vesp. subm. hyd. gr. v., pulv. Doveri, gr. viii.; c. m. sulph. magn. ℥ss. Bellad. ad palp.*

2*d*, Pupil dilated, oval from a tag at its outer margin. Iris slightly greenish. Fifteen ounces of blood were drawn; clots sizy.—*Sumt. ter in die pil. cal. et opii.*

4*th*, Tenderness of upper part of eyeball.—*Hirud. iij. ad palpeb. sup.*

5*th*, Tenderness gone. Mouth slightly sore. Sees rather worse.—*Sumt. pil. vespere tantum.*

8*th*, Vision improves. Has no pain, but much epiphora.—*Rep. hirud.*

9*th*, Sees worse.

12*th*, Mouth sore. No pain. No stool.—*Sumt. pulv. jalap. co. ℥i.*

13*th*, Pain has returned.—*Sumt. vini colch. gtt. xxx. ter in die.*

15*th*, Pain gone. Vision improved.

17*th*, Has still occasional pain. Epiphora. Bowels costive.—*Aug. dosis ad gtt. l.; sumt. sulph. magn. ℥i.*

20*th*, Can read numbers on tickets.

22*d*, *Sumt. pil. m. et v. tantum.*

24*th*, Mouth sore. Can read large type. Eyeball firm, and redness all but gone. No pain.

26*th*, No objective symptom, except smallness of the pupil.—*Omitt. vin. colch.*

31*st*, Can read small type. A single musca before eye.—*Sumt. pilulam v. tantum.*

January 6, 1844, Musca thinner.—*Omitt. pil.; App. vesic. ad temp. sinist.*

9*th*, Reads small type easily.—*Rep. vesic.; bellad. ad palp. utriusq. oculi.*

10*th*, Left pupil much less affected than right.

14*th*, There is still a slight general dimness of vision, and a musca appears when the circulation is quickened.

Case 37. *Postfebrile Ophthalmitis, with affection of vitreous body, and paralysis of iris. Mercury, quinine. Cure.*—13594. Robert Moffat, aged 44. January 6, 1844. Since recovery a month ago from relapse after fever, has had general dimness of vision, without muscae, of the right eye, and it is increasing, so that he can now only read the numbers on tickets. There is no pain. Eyeball softish; gray iris unchanged in colour, but pupil large and sluggish. There is the faintest possible rosiness of the sclerotic. Pulse firm.—*V. S.; sumt. vesp. pulv. purg. ℈i.; c. m. sulph. magn. ℥ss.*

7*th*, Twelve ounces of blood; clot large and soft.—*Sumt. 8va q. q. h. pil. cal. et opii.*

9*th*, Gums touched.—*Sumt. pil. i. vesp. tant.*

10*th*, Belladonna having been applied to eyelids of both sides, both pupils are widely and equally dilated. Mouth sore.—*Omitt. pilul.; sumt. sulph. magn. ℥ss.*

12*th*, Rosiness of the sclerotic nearly gone.—*Vesic. pone aurem dext.*

13*th*, Can read the large type. Rosiness gone, but vitreous humour slightly muddy.—*Rep. sulph. magn.*

15*th*, *Rep. vesic.*

16*th*, Can just read the small type. Vitreous humour natural, but pupil still sluggish. Mouth is yet sore.

18*th*, *Rep. vesic.*

20*th*, Says vision is always clearer in the morning.—*Sumt. sulph. quin. gr. i ter in die.*

25*th*, *Rep. vesic.*

February 10. All but well.—*Omitt. remedia.*

Case 38. *Postfebrile Ophthalmitis affecting both eyes, with deep-seated opa-*

city, reflecting light from the bottom of the eye, and apparently behind the retina. —13503. Catherine Maccourt, aged 25. December 9, 1843. Has been for two months convalescent from relapse after fever. Three weeks ago, after exposure to cold, began to complain of dimness of sight with both eyes; and a fortnight after, having got a wetting, had rigors, increased dimness of vision, and pain. There is now much ocular and frontal pain at night. With the left eye she can distinguish the fingers; with the right merely light and shade: both eyeballs softish, with a good deal of dark redness of sclerotic; irides greenish; pupils contracted, irregular, and hazy. Bowels costive.—*V. S.; bellad. ad palp. Sumt. stat. pulv. purg.* ℈i., *et c. m. sulph. mag.* ℥i.

10*th*, Only two ounces of blood obtained, in consequence of her getting sick. Pain less. With left eye she can read numbers on tickets. The pupil being somewhat dilated, a very distinct greenish reflection can be seen from the bottom of both eyes. Lens clear. There is no appearance of a moveable opaque body in the vitreous humour, but rather of a tapetum-like opacity of a concave form.—*Rep. med.*

11*th*, *Rep. med.*

12*th*, Right pupil most dilated. Mouth slightly affected.—*Rep. med.*

13*th*, Pain nearly gone. Mouth sore.—*Sumt. sulph. mag.* ℥i.

15*th*, With left eye can read large type. Redness of this eye nearly gone; iris still green.

Left the Infirmary without leave, and did not return: the whitish-green reflection continuing.

Case 39. *Postfebrile, superadded upon scrofulous Ophthalmia, the latter continuing after the cure of the former. Lenticular and vitreous opacities—catoptric test—cure.*—14133. Alexander Thomson, aged 13, July 2, 1844. Ophthalmia scrofulosa of long standing, with small albugines on corneæ. Recovered about three months ago from the epidemic fever, and right eye has been for about a fortnight much inflamed, while vision is now so dim, that with this eye he can merely see the light. There is considerable redness; the eyeball is softish and the pupil muddy.— *V. S.; sumt. vesp. pulv. purg. gr. x. Bellad. ad palp.*

3*d*. Pupil dilated; did not wait to be bled, or for medicine.

4*th*. ℥viii of blood; clot not buffy; pain less.—*Sumt. pil. cal. et opii ter in die. Hirud. iv. ad palp.*

6*th*. Has still nocturnal pain; pupil still muddy; deep erect image not visible, though distinct in the other eye; inverted image rather obscure.— *Vesic. ad tempus.*

8*th*. Pain gone; gums affected.

10*th*. Colic and purging. Can just see the light; but pupil clear, though there is still considerable redness of the sclerotic.— *Omitt. pil; sumt. ter in die Pil. Hyd. gr. i; vesp. opii gr. i.*

23*d*. Pain and redness gone; eyeball nearly of natural firmness; can read numbers on tickets.—*Cont. pil. Rep. vesic.*

29*th*. Vision improved.—*Rep. vesic.*

31*st*. An opaque body is distinctly seen deep in vitreous humour; can almost read small type.

Aug. 7. *Omitt. med., et capt. o. n. pil. Plummeri.*

14*th*. *Capt. pil. m. et v.*

21*st*. Ophthalmia scrofulosa alone remains.— *Omitt. med.*

Case 40. *Postfebrile Ophthalmitis of severe character, with deep-seated opacity in eye.*—13535. James Clark, aged 20, Dec. 20, 1843. Convalesced a month ago from relapse after fever, and six days before present date began to perceive hair-like muscæ before right eye; he cannot now read the numbers on tickets. The eye has been inflamed for four days, and is now painful and tender; cornea dull. (Blue) iris greenish; pupil turbid, and slightly irregular.—*V. S.; sumt. pulv. purg., et c. m. sulph. mag.* ℥i. *Bellad. ad palpebras.*

21*st*. ℥xii. of blood, buffed; pain less; sees merely the light, and perceives numerous greenish muscæ; bowels freely moved.—*Sum. ter in die pil. cal. et opii.*

22*d*. Pain continues.—*Hirud. iv. ad palp.*
23*d*. Did not wait for the leeches.—*Bellad. ad palp. Appl. hirud.*
26*th*. Mouth sore; some pain of eye still.—*Rep. hirud.*
28*th*. Sees rather better, and pupil clearer; pain less.
31*st*. Pain gone; redness less; pupil not dilated by the belladonna.
Jan. 5, 1844. Can distinguish between the fingers.
7*th*. Pupil being dilated by the belladonna, a whitish reflection from the bottom of the eye becomes visible; can read the numbers on tickets; sees best in the evening.
Ceased to attend.

Case 41. *Postfebrile Ophthalmitis, with an opacity deeply seated in the eye, but in front of the retina—restoration to vision.*—13544. Margaret M'Ewan, aged 9, Dec. 21, 1843. Has been for three months convalescent from second relapse after fever. Right eye has been inflamed for a week, its vision having been dim for some time previously. She has now with it mere perception of light and shade; there is considerable redness, ocular pain, and tenderness; pupil dull.—*Hirud. vi. ad palp. dext.*
23*d*. Pain continues.—*Rep. hirud., et sum. subm. hyd. gr. iv., pulv. Doveri gr. viii.*
24*th*. General debility.—*Sum. ter in die subm. hyd. gr. iss, sulph. Quin. gr. ss.; omne nocte pulv. Doveri gr. vi. Bellad. ad palpeb.*
25*th*. Pain gone.
26*th*. Redness nearly gone; but from the depth of the eye at its inferior part, there is a distinct whitish reflection; she can distinguish the numbers on tickets when placed below the level of the eye, so that the image falls on the retina where there is no opacity to interrupt it; mouth sore.—*Sum. pulv. cal. et quin. vesp. tant.*
27*th*. Iris sensitive.—*Omitt. pulv.*
28*th*. Inflammation gone; mouth very sore.
Jan. 2, 1844. Vision improved.
6*th*. Reflection from bottom of eye diminishing.
15*th*. The opacity is now moveable; considerable debility.—*Sum. sulph. quin. gr. i. bis in die.*
20*th*. Right pupil the smaller since belladonna washed off.
26*th*. Can nearly make out the small type. Opaque body less distinguishable; eyeball firm and otherwise natural.

Case 42. *Postfebrile Amaurosis in a boy, with opacity deep-seated in the lens* (?);—*following inflammation. Results of catoptric test. Opacity dissipated.*—13972. James Gallocher, aged nine, May 9, 1844. Had fever six months ago; and has for some time complained of dimness of vision of left eye, preceded by pain and redness, which have now disappeared. Sees merely the light. Iris greenish and lively; pupil dull.—*Bellad. ad palp.*
10*th*. Both pupils being fully dilated, a diffused greenish brown opacity is perceived seated deeply behind the left.—*Vesic. ad tempus sinist.*
11*th*. On applying the catoptric test, the deep erect image is more distinct, the inverted one less sharply defined than in the right eye.—*Pil. hyd. j. m. et v.*
16*th*. Gums touched. *Pil. vesp. tant.*
25*th*. *Rep. vesic.*
June 1*st*. Some strabismus divergens of left eye. Vision somewhat improved.
20*th*. Has taken no pills for a fortnight. Can distinguish between the fingers. Inverted image natural. Deep image as before. Some slight brownish reflection is still to be seen at bottom of eye.—*Rep. pil. et vesic.*
July 5. Seems very slightly touched. Can read the numbers on the tickets. Pupil clear, and no opacity discernible.

Case 43. *Postfebrile Ophthalmitis, with a moveable opacity in vitreous body. Cure.*—13938. Mary Belcham, aged thirteen. May 1, 1844.—Was admitted yesterday by Dr Mackenzie. "Had fever three months ago, and is at present la-

bouring under postfebrile ophthalmitis of left eye. Sight so dim that she merely perceives light and shade. Sclerotica injected; pupil irregular.—*Bellad. ad palp. sinist.—sum.* 8*va q.q. h. subm. hyd. gr.ij., opii. gr¼.*"

2*d.* Vascularity less.

3*d.* Mouth touched.—*Sum. pulv. vesp. tantum.*

5*th. Sum. pulv.* 2*da q.q. nocte.*

7*th. Vesic. ad tempus.*

10*th.* Mouth sore. The pupil having been widely dilated by belladonna, a diffused moveable opacity can be seen deep in the vitreous body. On applying catoptric test, image natural. Redness less.— *Om. med.*

21*st.* Gums still slightly sore.

26*th. Rep. vesic.*

31*st.* Opacity less. Reads small type.

June 10. Vitreous body almost quite clear.—*Rep. vesic.*

15*th. Dismissed cured.*

Case 44. *Postfebrile Ophthalmitis. Treatment without mercury by depletion, colchicum, and iodide of potassium. Cure.*—13386. William Docherty, aged thirty-six. Nov. 1, 1843. Vision with right eye has been dim since recovery, six weeks ago, from second relapse after fever. For four days he has had circumorbital pain during the day only. Iris clear; bowels regular. He cannot now read the large type; and he sees objects in the axis of eye worst, but his vision varies, and is sometimes much clearer. Sclerotic vascular, and cornea muddy, with a very distinct whitish line around its edge. Pupil contracted, irregular, sluggish, and nebulous.—*Bellad. ad palp.; V.S.; sum. sulph. mag.* ℥*j.*

2*d.* Clot of blood not buffy, large, and adherent to cups. Sees better, and has less pain. The pupil being somewhat dilated, is seen to be held to the capsule by two tags.—*Sum.* 8*va q.q. h. vini colchici gtt. xxx.*

3*d.* Can read the large type.

4*th.* Pain gone. Redness less.

6*th.* Can read the small type.

8*th.* One of the tags of the pupil has given way.

10*th. Vesic. ad tempus.*

11*th.* Bowels freely moved. Vision clearer.

14*th.* Reads more easily.

16*th.* General dimness of vision less; but an annular musca hangs before eye.

23*d.* Musca thinner and more diffused. Is purged.— *Omit. gtt.; sum. iod. potass. gr. v. ter in die.*

26*th.* Objective symptom gone.

Dec. 3*d.* A very thin cloud is perceived to the right of field of vision.

10*th.* Vision all but perfect.

Jan. 21, 1844. The faint cloud appears now only when bowels become costive. *Dismissed cured.*

Case 45. *Postfebrile Ophthalmitis, with an opacity at bottom of eye. Subsequent musca removed by gentle mercurials, when quinine had failed.*—13574. Catherine Rose, aged ten. Dec. 30, 1843. Has been for two months convalescent from second relapse after fever. A fortnight ago vision of right eye became dim, and muscæ appeared before it, and are still perceived, while the sight is so bad that she can just distinguish the light. Eye soft. Has for eight days had pain and tenderness of upper part of ball. The redness is now moderate, the (blue) iris darkened, the pupil irregular and dull, and two points of its edge are united by a transverse tag. There is a slight whitish reflection from the bottom of eye.—*Hirud. vi. ad palpeb.; sum. pulv. purg. gr.x.; c.m. sulph. mag.* ℥*iij.; bellad. ad palp.*

31*st.* Pupil irregularly dilated. Pain gone. Redness less.—*Sum. m. et v. pil. hyd. i.*

Jan. 3, 1844. Can distinguish the end of a pen. Pupil nearly regular.

15*th.* Inflammation gone.— *Vesic. ad tempus.*

16*th.* Mouth not yet affected. Objective symptoms gone. Vision improved. —*Sum. pil. vesp. tantum.*

18*th*. Can make out large type.—*Rep. vesic.*
19*th*. Reads small type easily.
23*d*. *Rep. vesic.*
28*th*. Still has muscæ floating before the eye. Pulse feeble.—*Omit. pil.; sum. sulph. quin. gr. j. ter in die.*
March 1. Has continued the quinine since last report. The musca is larger, and described as annular.—*Omit. quin.*
10*th*. No change.—*Sum. omne nocte submur. hyd. gr. j.*
May 11. Musca gone. Vision almost perfectly clear.—*Omit. pulv.*
Dismissed cured.

Case 46. *Postfebrile Ophthalmitis, with organic changes in iris and capsule, and yet tolerable vision.*—13429. William Cassils, aged 33, November 16, 1843. Recovered a fortnight ago from second relapse after fever; having been exposed to cold in a week thereafter, had next morning an attack of acute pain in left eyeball, the upper part of which is still very tender. There is much redness; the (blueish) iris darkened; the pupil contracted and irregular, muddy, and fringed with vessels on the capsule. Epiphora. Reads small type easily. (Blood was drawn, and the clot was buffed.) Did not return.

Case 47. *Postfebrile Ophthalmitis, with vision of objects as if through a red haze. Smallness of pupil. Cure by mercury.*—13458. David Bell, aged 26, November 25, 1844. After recovering, six weeks ago, from second relapse after fever, was exposed to cold; and nine days before present date began to complain of dimness of vision with right eye; he perceives no muscæ, but a red haze over everything he looks at. Has for a week had pain of eye, since the occurrence of which the amaurotic symptoms have been much diminished. Redness moderate; pupil somewhat hazy. Pulse weak.—*Bellad. ad palp.; sumt. m. et v. pil. cal. et opii.*
30*th*, Redness much less; pupil regular. Can read small type. Pain gone. —*Sumt. pil. j. v. tant.*
Dec. 4*th*, Objective symptoms gone, except that the right pupil is the smaller. Mouth sore. Sees nearly quite well.—*Sumt. pil. j. 2da q. q. n. tant.*
22*d*, Vision perfect. Right pupil still smaller than the other. *Dismissed cured.*

Case 48. *Postfebrile Ophthalmitis affecting the eyes in succession. Photopsia, Chroopsia, Muscæ; Cure.*—13615. Janet Watson, aged 14, January 13, 1844. Recovered two months ago from second relapse after fever, and shortly after, left eye became inflamed. It is no longer red or painful, but her vision with it, though improved, is still so dim, that she cannot make out small type. The right eye became inflamed when the left got better, and for this she was leeched and mercurialised. With this eye she can only read the numbers on tickets; and she perceives before it muscæ, and occasional flashes of red-coloured light. No objective symptom in either eye. Irides lively. General health good.—*Sumt. sulph. quinae gr. j. ter in die.*
18*th*, Thinks vision somewhat improved. Slight occasional pain over the right eye.—*Omitt. quin.; Hirud. vi. ad palp. dext.; Sumt. omne mane sulph. mag.* ℥*ij.*
21*st*, Photopsia less.—*Rep. hirud.*
23*d*, Luminous flashes appear yellow instead of red.—*Rep. hirud.*
Feb. 1, *Rep. hirud.*
12*th*, Photopsia gone.—*Sumt. iodid. potass. gr. j. ter in die.*
March 17, Numerous muscæ before right eye.
27*th*, Muscæ fewer, described as being angular, and sinking gradually when eye fixed on the window.
May 9, Coloured vision now only at night. With right eye can read small type.
25, Vision improved.—Chroopsia gone.
June 4, *Omitt. med.*
July 5, Vision perfect.—*Dismissed cured.*

Case 49. *Postfebrile Ophthalmitis complicated with periostitis of orbit. Cure.*—13863. William M'Ghee, aged 49. Admitted under Dr Mackenzie, April 6, 1844. "Had epidemic fever in November, and after his recovery began to complain of pain in upper edge of right orbit, where there is considerable swelling, stretching backwards along the roof of orbit, and downwards towards the nose. The integuments are red and tender. He opens the eye imperfectly, and the vision is dim. Bowels regular; tongue clean.—*Hirud. vi. ad tempus. Capt. pil. Hydr. j. o. n.*

9*th*, Pain less.

12*th*, Mouth sore. Symptoms abate.—*Omitt. pil. Sumt. sulph. mag.* ℥*j.*

22*d*, Swelling and pain gone.

28*th*, Vision still dim."

Case 50. *Postfebrile Ophthalmitis in a syphilitic subject. Good effect of bleeding and purging. Cure.*—13525. William Watt, aged 29. Dec. 16, 1843. During summer had an eruption on skin, rheumatic pain, and nodes; also an attack of inflammation of the left eye, with hemicrania. Recovered nine weeks ago from relapse after fever, and since then the pain of eye has been less than before, till eight days before present date, from which time the pain has increased, and the vision has become more dim, so that he can now scarcely distinguish the fingers. There is also considerable supraocular tenderness, and a good deal of redness; the (blue) iris is darkened, the pupil small and irregular. Pulse feeble; bowels costive.—*V. S.; Bellad. ad palp. Vesp. pulv. purg.*

17*th*, ℥xiv of blood drawn. Pain less, and he can read the small type. Injection much diminished.—*Rep. pulv., et sumt. c. m. sulph. magn.* ℥*ss.*

18*th*, Pain quite, redness nearly gone. Gums touched.—*Sumt. vesp. Ext. colchici acet. gr. ij.; c. m. rep. sulph. mag.*

19*th*, Redness gone; bowels freely moved; mouth sore. *Sumt. vesp. subm. hyd. gr. iij., pulv. ipec. co. gr. x.; c. m. rep. sulph. magnesiæ.*

24*th*, Objective symptoms gone, except a slight tag of the pupil. Very slight general dimness of vision. Mouth sore.—*Rep. sulph. magn.*

31*st*, *Sumt. sulph. quin. gr. j. ter in die.*

January 7, 1844, Vision and general health improved.

February 11, Vision perfect.—*Dismissed cured.*

Case 51. *Postfebrile Ophthalmitis in a person probably Syphilitic. Cure.*—14037. Ann Collins, aged 21, June 2, 1844. Had fever eight months ago; two months back right eye became inflamed, and its vision dim. She cannot now distinguish the fingers; there is considerable redness; the pupil is irregular and contracted.—*V. S.; Bellad. ad palp.—sum. vesp. pulv. purg.—c. m. sulph. magn.* ℥*ij.*

3*d*. ℥v. of blood drawn; clot buffy.—*Rep. med.*

9*th*. Has not attended; can read large type; there are two small condylomata on edge of pupil, and superficial ulceration on fauces.—*Vesic. ad. tempus; sumat pil. hyd. j. m. et v.*

14*th*. Mouth sore; pupil larger; can read small type; redness all but gone.—*Om. pil.*

Case 52. *Metastatic Postfebrile Ophthalmitis.*—13959. William Struthers, aged 20, May 4, 1844. Recovered from fever five months ago, and in a month thereafter had amaurotic symptoms, at first affecting left eye, but which, in three weeks, shifted to the right, leaving the left entirely. In two months more, without treatment, vision of right eye returned, and that eye is now natural in appearance and in function, except that the pupil is somewhat irregular. Four days ago there again occurred inflammation of the left eye, which is much injected; iris greenish; pupil contracted and dull; vision reduced to a mere perception of light; pain severe; pulse firm.—*V. S.—sum. pulv. purg.; c. m. sulph. mag.* ℥*i. Bellad. ad. palp.*

Did not return.

Case 53. *Postfebrile Amaurosis cured spontaneously. Subsequent attack of Inflammation in same eye.*—13860. John Lewis, aged 21, admitted under Dr Mackenzie, April 5, 1844. "Had fever four months ago, and shortly after convalescence, dimness of vision with left eye, which went away in three months. Eight days ago, after exposure to cold, the eye became inflamed; and with it he cannot read small type. The iris is green, and the pupil irregular."

Case 54. *Postfebrile Ophthalmitis in an early stage. Marked Amaurosis with sensitive pupil. Good effect of bleeding and purging. Cure.*—13646. Mary Ann Mackinlay, aged 21, January 23, 1844. Recovered six weeks ago from relapse after fever. For a week before present date had been exposed to a current of cold air blowing upon left side of head, but she experienced no inconvenience from it till four days ago, when she found on awakening in the morning, that she could just perceive the light with the left eye. Last night, for the first time, had some ocular pain. Eyeball firm, but tender; sclerotic very faintly injected, but pupil lively, and no other objective symptom; vision continues the same.—*V. S.—sum. vesp. pulv. purg., c. m. sulph. mag.* ℥*i.*

24*th.* ℥xii. of blood drawn, clot pretty firm, and adhering to cup; serum scanty; vomiting and purging; vision very nearly perfect; there being the slightest possible haze before the eye; eyeball still somewhat tender, and sclerotic rosy.—*Ad. palpeb. hirud. vi.*

25*th.* Sclerotic of natural colour; vision all but perfectly clear. *Dismissed cured.*

Case 55. *Postfebrile Ophthalmitis, with conjunctival irritation. Good effect of sulphate of quinine in the secondary Amaurosis. Cure.*—13455. John Brockie, aged 14, November 24, 1843. Convalesced three weeks ago from relapse after fever; having been exposed to cold, vision of right eye became dim ten days ago, and ocular and circumorbital pain, worst at night, came on next day; there is much redness and epiphora; the bluish iris is darkened, and the pupil irregular. Can read numbers on tickets.—*Sumt. tertiis horis nitratis potassæ gr. x.*

27*th.* Cannot distinguish the fingers; intolerance and pain continues.—*Omit. pulv.—V. S.—sumt. ter in die vini colchici* ℥*ij.*

28*th.* ℥x of blood, clot soft; visionsomewhat improved; considerable conjunctival irritation.—*Gtt. sol. nitr. arg. gr. iv. ad.* ℥*i.*

29*th.* No change.—*Capt. ter in die subm. hyd. gr. ij.; tart. antim., pulv. opii aa. gr.* ½. *Omit. colch.*

30*th.* Pain gone; reads numbers on tickets.

Dec. 2. Conjunctival irritation much diminished.

3*d.* Reads large type; mouth not affected.

5*th.* Redness nearly gone; eyeball still soft; reads small type easily; mouth not affected.

8*th.* Conjunctival irritation gone.

10*th.* Redness almost quite gone, but cannot read large type; pupils lively; bowels free.—*Sulph. magn.* ℥*ss.*

11*th.* Redness gone.

13*th.* Stationary.—*Omit. pulv.; sumt. m. et v. pilul. hydrarg.*

20*th.* Right pupil dilates less freely to belladonna than the left.

24*th.* No objective symptom, except that the pupil, though lively, is smaller, and the eye softer, than the left; cannot distinguish the fingers; mouth scarcely touched.—*Omit. pil.; sum. sulph. quin. gr. j. ter in die.*

31*st.* Can read large type; eyeball firmer, and pupil of the same size as that of the opposite eye.

Jan. 28. Has taken no medicine for a fortnight; objective symptoms gone, and vision perfect.—*Dismissed cured.*

Case 56. *Postfebrile opthalmitis, showing the immediate effect of bleeding, purging, and blistering on vision—Cure.*—13464. Helen Telfer, aged 15. Nov. 28, 1842. Recovered twelve days ago from an attack of continued fever, and the vision of left eye became dim the day before convalescence; has for three

days had supraocular pain and tenderness of eyeball, and cannot at present read the large type. There is not much vascularity; the (grey) iris is slightly greenish, but the pupil lively; bowels costive.—*Bellad. ad palp. V.S.; sum. pil. cal. et opii j. m. and v.*

29*th.* Pain less; can read large type. ℥ix of blood; clot loose; pupil fixed to capsule by two tags.—*Hirud. vi. ad tempus.*

30*th.* Gums touched; pain severe last night.—*Rep. hirud. ad palp.*

Dec. 1. Mouth sore; pain again last night; bowels costive; cannot read large type.—*Pulv. purg.*

2*d.* Can read large type; redness gone; pupil dilated and regular, but face of iris dull.—*Sum. pil. vesp. tantum.*

4*th.* Vision improves; objective symptoms gone.—*Omitt. med.*

6*th.* Reads small type easily.

18*th.* *Sum. iod. potassii gr. v. ter in die.*

Jan. 14. Has not attended; complains still of some general dimness of sight.—*Vesic. ad tempus.*

15*th.* Sees nearly quite well.

16*th.* *Rep. vesic.*

Dismissed cured.

Case 57. *Postfebrile ophthalmitis preceded by articular pain—dilatation of pupil—relief from colchicum—relapse—cure by mercury—second attack affecting opposite eye while under its influence—quinine injurious even when much debility.*—13395. Mary Cobourg, aged 18. Nov. 3, 1843. Convalesced a month ago from second relapse of the fever, which was accompanied with some articular pain. A week subsequently vision of left eye became dim, and that eye has been painful for ten days, chiefly at night. There is considerable, but chiefly conjunctival, redness. The (blueish) iris has become dark green, the pupil is large and insensible; can read the numbers on tickets; pulse 120, weak.—*Applic. hirud. vi. circum oculum. Sum. sulph. mag. ℥j.*

4*th.* Bowels scarcely moved; no change.—*Sum. ter in die vini colchici ℥ss.*

5*th.* Vision improved, and pain less; no stool.—*Aug. dosis ad gtt. xl.*

6*th.* Bowels moved; pain gone.

9*th.* Pupil of natural size; can read large type.

10*th.* Much nocturnal pain.—*Rep. hirud.*

13*th.* Cannot read large type; pupil somewhat irregular.—*Bellad. ad palp.: Sum. ter in die pil. cal. et opii.*

17*th.* Vision improved; gums touched.

21*st.* Mouth sore; can read large type easily; redness nearly gone; iris almost of natural appearance.—*Sum. pil. m. et v. tantum.*

23*d.* Complains of slight dimness of vision of the right eye, with the presence of a musca. The eye is faintly vascular.—*Sulph. quin. gr. j. ter in die. Omitt. pil.*

27*th.* Was exposed to cold two nights ago, and right eye has become more inflamed and painful; the iris is green, but she can read small type; mouth still sore.—*Pulv. ipec. co. gr. viii.*

30*th.* Returns to-day with increased inflammation of right eye, and severe pain; cornea nebulous, sclerotic vascular, and tumid around its edge; iris very green; sees merely light and shade; pulse rapid and feeble; with left eye can read small type.—*Omitt. quina. App. ad palp. dext. hirud. vii. Sum. ter in die subm. hyd. gr. ij, Pulv. opii., tart. antim. āā gr. ¼.*

Dec. 4. Can read numbers on tickets with right eye; cornea less nebulous; pain less; mouth sore; vomits powders.—*Omitt. med. Sum. m. et v. calom. gr. ij., pulv. Doveri gr. x.; et ter in die vini colchici ℥ss.*

Did not return.

Case 58. *Postfebrile ophthalmitis at an advanced age—mercury usefully employed—affection remittent.*—14141. James Brodie, aged 60. July 3, 1844. Recovered from fever in November, and the right eye has since been inflamed, at first remittently. He cannot now distinguish the fingers; left eye weak; redness slight; pain not severe.—*V.S.—Belladonna ad palpebras. Pulv. purg.*

5*th*. Redness almost gone, and pain less; pupil dilated; inverted image obscure.—*Sum. pil. cal. et opii ter in die. Vesic. ad tempus.*
8*th*. Pain and redness gone; vision as before; gums touched.
10*th*. *Omitt. pil.*
13*th*. Can read numbers on tickets.—*Rep. vesic.*
15*th*. No objective symptom; can nearly read large type.

Case 59. *Postfebrile ophthalmitis, not severe—administration of nitrate of Potass—cure.*—13435. Christina Macpherson, aged 14. Nov. 20, 1843. Dimness of vision with left eye, from the presence of muscæ before it; this came on three weeks ago, being about eight subsequently to her convalescence from relapse after fever; she has had pain, worst at night, for a fortnight, and can at present read large type; there is slight redness; no other objective symptom.—*Sum. nitratis potassæ gr. x. 4tis horis.*
21*st*. Pain gone; can read small type easily; one stool.
23*d*. Muscæ gone; six stools to-day.—*Sum. pulv. 6tis horis.*
27*th*. Redness gone.—*Sum. pulv. 8va q.q. h.*
29*th*. *Omitt. pulv.*
30*th*. *Dismissed cured.*

Case 60. *Postfebrile ophthalmitis, not severe—treatment by antimony and colchicum, without effect:—by turpentine—cure—fresh attack in other eye—treatment by antimony and opium, with benefit.*—13404. Rosanna Gillies, aged 17. Nov. 8, 1843. Since recovery about a month ago from fever, has seen dimly with right eye, and it has been painful for five days, though without nocturnal aggravation. Can now with difficulty read small type; there is considerable redness of eyeball; the (blue) iris is greenish; looks thin and pale; pulse 116.—*Sum. 3tiis horis tart. antim. gr.¼, opii gr.⅛.*
10*th*. Nausea, but no stool.—*Sum. sulph. mag. ℥ss.—cont. pulv.*
11*th*. Iris of a more natural colour; reads small type easily.
12*th*. Does not see so well to-day.—*Sum. vini colch. gtt. xxx. 8va q. q. h.*
15*th*. One stool.—*Aug. dosis ad gtt. l.*
19*th*. No improvement; had pain of eye last night.—*Omitt. med. et sumat sp. tereb. ℥j ter in die.*
21*st*. Redness less.
26*th*. Iris of natural colour.
30*th*. No pain or redness; pupil lively, but smaller than the left; vision still hazy.
Dec. 3. Cloud before eye, resolving into muscæ; one stool daily.
8*th*. Vision continues to improve.—*Omitt. sp. tereb.*
12*th*. Can see to sew. *Dismissed cured.*
Jan. 5, 1844. *Readmitted.* The right eye in all respects natural; day before yesterday had an attack of pain in left eye, which is now tender, with moderate redness; green iris, but lively pupil; no nausea, but vision dim, so that she cannot read small type.—*Sum. ter in die tart. antim. gr.¼. Pulv. opii gr.⅛.*
6*th*. Vomited each powder; pain and tenderness gone.
7*th*. Continues to vomit powder; redness nearly gone.—*Omitt. pulv.: sum. ter in die vini colch. ℥ss.*
10*th*. Iris natural; sees as before.
Ceased to attend.

Case 61. *Postfebrile Amaurosis of* 16 *months' standing. Relief from Mercurialization.*—14872. Martha M'Comb, aged 45, May 21, 1845. Had epidemic fever 16 months ago; vision has since been becoming dim, but without pain or redness of eyes, which are both affected. Cannot now read large type; no objective symptom; pupils lively.—*C. c. ad nucham ad ℥viii. Sum. m. et v. pil. hydrarg.*
22*d*. No change.
24*th*. Mouth sore; vision improved—*Omit. pil.—vesic. pone aures.*
28*th*. Vision continues to improve slowly.
June 13. Reads large type easily.

OBSERVATIONS ON TYPHUS.

ABRIDGED FROM AN ESSAY SUBMITTED TO THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW IN 1840.

By ANDREW ANDERSON, M.D.

The following observations on our ordinary epidemic fever were made during a residence of two years and a half in the Glasgow Royal Infirmary, eighteen months of which were devoted exclusively to the care of the patients in the Fever Wards.

After having formed a certain acquaintance with the disease by acting for a year as Medical Clerk in that department, the series of observations which are the principal foundation of the present paper was begun, and was continued from Sept. 1837 till Sept. 1838. The observations were conducted in the following manner:—A certain number of cases being selected, their previous history was ascertained as accurately as possible, and the symptoms each day carefully recorded in the tabular form under 23 heads. The chest was carefully explored with the stethoscope, whenever the state of the patient permitted it, and as little as possible was taken on the report of nurse or patient. The cases selected were either those of recent origin, which might be thus traced from an early stage, or such as were particularly severe. In case of death, the greatest care was bestowed on making and recording the inspection.

The cases so traced were 257, or 175 male and 82 female; and of these 65 afforded post mortem examinations. Besides the facts so collected, I have in the following pages made use of those amassed in the ordinary course of my duty as Fever Clerk.

I intend to classify my remarks as follows,—

1. The previous History of those attacked.
2. The Conditions of the Disease.
3. The Mortality.
4. The Morbid Anatomy.
5. The Connection between the Symptoms and pr[illegible]
6. The Complications and Sequelæ.

By Typhus, I mean the ordinary epidemic fever [illegible] essentially marked by contagiousness, and by its [illegible]

About 1-7th of the cases admitted into [illegible]