

Clinical Lecture

ON OPACITIES IN THE VITREOUS BODY, IN CONNECTION WITH MYOPIA, SYPHILIS, AND OTHER CAUSES.

Delivered at Moorfields Ophthalmic Hospital.

BY
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GENTLEMEN,—The vitreous body consists of a jelly-like fluid enclosed in the meshes of a very thin and delicate framework. This framework is perfectly transparent, and in the adult eye receives no blood-vessels. That it is, however, susceptible of inflammation, is abundantly proved by clinical experience; and we may do well to recollect that, in the foetal state in man, and in the adult state in some of the lower animals, arteries pass through it. We now and then meet with, as a congenital defect, a fibrous cord in the centre of the vitreous humour, representing the branch of the arteria centralis, which, in the foetus, passes forwards through it to the back of the lens. In one or two cases of congenital cataract recently under our observation, it appeared probable that some opaque bands extended from the posterior part of the lens for a little distance into the vitreous humour. We have to deal to-night however, not with these rare abnormalities—interesting chiefly on account of the laws of development which they illustrate—but with certain diseased conditions of the vitreous humour which are tolerably common in practice and of which the correct diagnosis and treatment are important. We have had before us two patients, in whose eyes floating films in the vitreous humour were very easily seen; and last week we had a third case of the same kind. These three cases illustrate severally the three principal conditions under which opaque films in the vitreous humour are met with. One was a case of extreme myopia, one of constitutional syphilis, and in the third, in connection perhaps with albuminuria, hæmorrhage into the vitreous humour had taken place.

Respecting opacities of the vitreous humour in connection with advancing myopia, I need not this evening say much, as we considered this subject at a former lecture, and illustrated it by cases. It will be sufficient now to remark that, in the late stages of staphyloma posticum, when all the structures of the eye are becoming involved, when detachments of the retina, opacities of the lens, etc., are frequent, we meet also with floating films in the vitreous humour. They are the results of degenerative changes which involve the eyeball as a whole. The patients generally complain much of the muscæ which are occasioned by them. These cases may be diagnosed with the greatest ease from those of which syphilis is the cause. In the first place, we have the history of

myopia and the ophthalmoscopic demonstration of an elongated globe; and, secondly, the opacities are usually few in number, very rarely so abundant as they often are in syphilis. We come, then, to the third class of cases; those in which opacities result from extravasation of blood. Blood may find its way into the vitreous body, either from the choroid, the retina, or the ciliary processes. It is often effused into this situation as the result of blows on the eye; but it occurs yet more frequently without any history of injury. A recent extravasation is easily discovered by the ophthalmoscope, and presents one of two different characters; either you see a black or reddish-black clot surrounded by almost clear vitreous humour; or, what is I think more common, the whole of the latter is blood-stained. In the latter condition, to look into the eye with the ophthalmoscope is much like looking into reddish apple-jelly not so clear as it should be, and you are quite unable to distinguish the details of the fundus. In all probability, you will still be able to make out, by the depth of colour at one spot, the position occupied by the original clot. In some cases, the effusions of blood are rapidly absorbed; in others, they remain for a long time. In the best cases of absorption some remnants are almost always left, in the shape of opaque floating films. Such is the present state of things in one of the eyes examined this evening.

CASE. The patient, John M., a pallid tremulous man, a carpenter, has been accustomed to drink freely. He came to me two years ago, complaining that he could but see a glimmer of light with his right eye, and that the other was failing. He had had perfect sight till four months previously. He had never used glasses till within the last six weeks, and they had been of little or no benefit. During the last few weeks, the eyes had rapidly got worse. He could not tell the time with the left eye, and could not see the clock with the right eye. A fortnight before, he said, he could have told the time well. He could not, with both eyes, read or spell out the letters of No. 16, and could but just make out No. 18.

He said he had felt well; but had been sleepless lately, probably on account of anxiety about his eyes. He felt well in all respects when the symptoms began. His first symptom was a black speck before his sight, and then a thick cloud took its place. In the right eye, I found numerous apoplectic spots in all parts of the retina. The margins of the optic disc were indistinct owing to deposits in the retina; and at the yellow spot was a group of white, highly refracting spots. In the left eye, the conditions were much less advanced; but there were apoplectic patches near the yellow spot, also some white glistening ones.

Four months later, he had improved in general health. Some of the extravasations had disappeared, and others were in process of absorption.

In January 1865, I heard that he had had a fit, but it had not left any paralysis.

You will see that I have not said anything as to blood in the vitreous humour; but, as he now has a large floating body in the vitreous humour, it is almost certain that he must have had an extravasation into the middle of his eye at some period. His case, therefore, affords us an instance of apoplexy of the vitreous humour, in association with retinal apoplexies, and in all probability with disease of the kidney.

CASE. John W., aged 41, came to the hospital on September 15th, with the statement that he had en-

joyed excellent sight till the previous Tuesday. On the evening of that day, he was at his work and suddenly found that his left eye was foggy. He rubbed it, but it got no better. When he came to me, he could but just count fingers with the affected eye, and said that there was a brown smoke-fog before it. The ophthalmoscope showed the vitreous body semi-opaque and reddish, like apple-jelly. There were also large floating films in it. I could not distinguish the optic disc. Two months later, he could read No. 6, and I could dimly make out his optic disc. Three months after his admission, he could see tolerably well and the optic disc was clearly defined. There were still floating films in the vitreous humour; but the intervening parts were perfectly clear.

This man had had syphilis twenty years ago, with rash, etc., and had been salivated for it at St. Bartholomew's Hospital. As he had remained quite well for nineteen years, it seems scarcely fair to attribute the apoplexy of the vitreous humour to that cause. Still, however, it is very possible that his vitreous humour may have been left in an unsound condition by a former attack of syphilitic inflammation.

We will consider next the group of cases in which syphilitic inflammation of the vitreous body occurs. The instance of this which we have just demonstrated is an exceedingly good example of the results of this disease. The patient is a married woman, who contracted syphilis from her husband some months ago. It was followed by a rash, and afterwards by inflammation of both eyes. She came to me about two months ago, much in the same condition that she is at present. The eyes are not congested; there are no iritic adhesions; and under atropine the pupils dilate widely. On throwing light into the eye with the ophthalmoscope-mirror, we see numberless half-opaque films, which dance about in the movements of her eye. The substance of the vitreous humour between the films appears to be transparent; but had we examined the eye at an earlier period of the inflammation, we should probably have found that the whole was hazy and opaque and should have been quite unable to have obtained any reflex from the deeper parts. What we see now are the consequences of past inflammation.

Speaking generally, syphilis is by far the most frequent cause of inflammation of the vitreous humour. Whenever you find floating bodies in this substance, and have the history given that they are of recent occurrence, and that the eye was formerly quite sound, always suspect syphilis. Your suspicion will be strengthened if your patient is young and if both eyes are affected. I will pass, almost at random, through the note-book before me, which comprises some of the more interesting cases which have come under my care here during the last two years.

CASE I. Mrs. E., aged 30, the wife of a soldier. In both eyes were numerous floating films in the vitreous humour, and the choroids were thinned and absorbed in patches. Her first symptom had been black specks before the eyes, then a thick fog. She denied a syphilitic history; but, as the conditions were symmetrical, and as they occurred together with choroiditis, I think that in all probability they were of syphilitic origin.

You will recollect that, in a former lecture on choroiditis disseminata, I brought forward evidence in support of Von Gräfe's opinion that most of our well marked examples of choroiditis disseminata were of syphilitic origin.

CASE II. Mary C., aged 30, a cook, unmarried, came under my care with iritic adhesions and opaque vitreous humour in the right eye. In the left eye she had retinitis. There had been a good deal of aching about the eyeballs, and both of them were somewhat congested. She denied all history of syphilis; but you will notice that the disease affected both eyes, and that there was iritis and retinitis as well. She had some suspicious blotches on the arms; and I have no doubt that she was the subject of syphilis. I prescribed accordingly.

CASE III. Mrs. P., aged 31, suffered from syphilis some years ago, and is the mother of many syphilitic children who have at different times been under my care. Her right eye is blind owing to the vitreous humour being opaque. I cannot illuminate the fundus. The original inflammation occurred some years ago. Her other eye is quite healthy.

CASE IV. A young woman, aged 22, who admitted that she had had syphilis three months previously and had been salivated for it, came under care with tags of iritic adhesion in both eyes, numerous patches of whitish lymph in both choroids, and numerous films of opacity in the right vitreous humour.

CASE V. John E., aged 32, had suffered from syphilis eight years before he came under my observation. His right vitreous humour was opaque, and full of moving films. The other eye was quite normal. He believed that the defect in sight had only existed for two months previously.

CASE VI. John M., aged 37, contracted syphilis about two years ago. He was under my care first in the London Hospital, and subsequently here on account of severe double iritis. When the iritis was passing off, symmetrical inflammation of the vitreous bodies occurred, and for some months the poor fellow was practically blind. He has now somewhat improved; but his sight is still very defective.

When inflammation of the vitreous humour occurs from syphilis, it is almost always one of the secondary group; by which I mean that it occurs at the same time as the general rash on the skin, the sore-throat, and iritis. I think it is mostly rather late amongst the secondaries; at, say, from four months to a year after the chancre. It often occurs just after iritis; sometimes inflammation of the iris, vitreous body, choroid, and retina, occur together—illustrating the observation made long ago by Dr. Jacob of Dublin, that what is called syphilitic iritis is often a panophthalmitis and affects various other textures. I am a warm advocate for the use of mercury in these syphilitic inflammations of the eye. Our prognosis must be guarded; for, although in many cases, mercury does wonders in restoring an opaque vitreous body, in but few if any do we wholly get rid of the films which result. In most cases a long treatment is absolutely necessary.

In order to give a fair picture of the causes which may induce the changes in the transparency of the vitreous humour, I must mention the case of

William T., a poor miserable man, aged 35, who came under my care about two years ago. He had some opacities on his corneæ; but with the ophthalmoscope we found that the vitreous humour in each eye was opaque. The opacity was grey and cloudy, and at first sight suggested detachment of the retina; but, with painstaking, a dim view of the optic disc might be got. It was certain that the retina was not detached. The opacity was equal in almost all directions. The man denied having ever had syphilis, or having ever been exposed to the possibility of contracting it; but, with the utmost

misery of expression, averred his belief "that it was all caused by bad practices." It appeared that he had enjoyed good sight until the age of 17, when his eyes began gradually to fail. He had been addicted to onanism from early boyhood. He could now with difficulty make out letters of No. 16 at two inches. He was a pale cachectic man. I have learnt from his friends that since he was at Moorfields he has become quite blind, and that he is now in an asylum.

It is well known that muscæ are amongst the commonest consequences of sexual abuses; but, excepting this case, I have not met with any instance of actual blindness in connection with this cause; nor do I possess the notes of any case in which actual opacities were found in the vitreous, though I think I have seen several. The kind of muscæ which occur in connection with this cause are what are usually called pearly spectra, and are a phenomenon which may be made apparent in the eyes of the most healthy persons by certain optical arrangements. They do not, therefore, imply any opacity of the vitreous body.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

PORTSEA ISLAND UNION HOSPITAL.

MEDICAL STATISTICS FOR 1865.

By FREDERICK PAGE, M.D., Milton, Southsea.

THE subjoined statistics of one of our great provincial Union Hospitals are, I think, interesting; and I trust that many of my colleagues will follow suit, and show the public that they are not the miserably conducted places that have been represented.

The Portsea Island Union consists of three parishes, comprising an area of 7,000 acres, with a population of 95,000.

The hospital of this union is a large detached brick building (in the rear and centre of the Union House), with an average of 260 patients, inclusive of about 80 lunatics. As it was not originally intended to accommodate so large a number, it has been added to when the emergency rendered it necessary; consequently, it is not arranged as it should be; still the wards are spacious, lofty, well ventilated, and appointed. The wards are unexceptionably clean, exceedingly well managed, and in a healthy locality, some distance north-east of the towns. The Union House itself is a very large establishment, consisting of a pile of brickwork, with two wings. The schools are of modern erection; and there are about 600 children attending them, receiving instruction, and living in the building.

The three blocks of buildings contain between 1500 and 1600 persons, and the numbers are rapidly increasing. The Union House, or main building, was built nineteen years ago, for the accommodation of 1,150 inmates, having at that time about 900 only. From that period to the present, the large increase in the population of this borough, and the peculiar class forming a large proportion of its inhabitants, has tended to augment the numbers of the destitute, the sick, and the aged; and will do so, no doubt, for an indefinite period.

The following statement shews the deaths for the last year.

January. There were 5 deaths this month from lung-disease; the ages were respectively 66, 60, 27, 65, and 64. The deaths from natural decay were 5; the average age, 76 years. The deaths from marasmus were 4 (all infants).

February. The deaths resulting from natural decay this month presented an extraordinary feature. They amounted to 7. The united ages were 599 years, and the average 85. The deaths from lung-disease were 4; the respective ages being 42, 50, 43 years, and 19 months.

March. The deaths resulting from natural decay this month were again 7; and the age nearly approached the patriarchal years of those dying last month from this cause; being in the aggregate 576 years, and averaging 82. The deaths from lung-disease were but 2, aged 65 and 25 years.

April. The deaths from natural decay this month were 4, each above 70, and not exceeding 77 years. The deaths from lung-disease were 4; their respective ages being 20, 27, 43, and 68 years. From other causes the deaths were also 4, making only 12.

May. The deaths from natural decay this month were only 2, aged 67 and 85 years; and from lung-disease 4, aged respectively 3, 22, 28, and 45 years.

June. Only one death from natural decay occurred this month, aged 65. From lung-disease there were 3; the ages being 37, 56, and 74. The deaths from brain-disease were 4; and the deaths from marasmus 3 (infants).

July. The deaths from natural decay this month were 5, averaging 74 years. The deaths from lung-disease were 4; the respective ages being 12, 21, 43, and 55 years. The deaths from brain-disease were this month again 4.

August. The deaths from natural decay this month were 5; the united ages being 408 years, and the average 81. The deaths from lung-disease this month were 4; the respective ages being 6, 21, 22, and 40. Three infants died from marasmus.

September. The only death this month from natural decay was that of a man aged 76. The deaths from all causes this month were 8 only. The deaths from lung-disease were 2, aged 22 and 45 years.

October. The deaths from natural decay this month were 5; the united ages being 398 years, and the average 79. From lung-disease, only 2 deaths occurred; the ages being 22 and 36 years. One death occurred this month from Asiatic cholera (aged 17 years), being the first case of the kind during the epidemic.

November. The deaths from natural decay this month presented the unusually large number of 11; the respective ages amounting to 866 years, averaging 79½; the greatest age being 89, and the least 70. The deaths from lung-disease were also the highest in any month during the year (6); the respective ages being 36, 27, 37, 30, 31, and 40. The deaths from Asiatic cholera were 4; the ages being 62, 42, 40, and 20; and from choleraic diarrhoea 3 old men, aged 79, 83, and 81. The deaths from all causes during the month were 32.

December. The deaths from natural decay this month were 6; their ages, as usual, ranging from 70 to 80 years, and averaging 75. Four infants died from marasmus. From lung-disease 3 died, whose ages were 61, 64, and 43 years. No deaths from cholera took place this month. It visited the establishment towards the end of October, and the last case of 14 that was admitted into the hospital with cholera was on the 11th of November.

The average age of those dying from natural decay (59 in number) during the year was 76 years.

The total number of deaths for the year was 212.