

some enlargement of the spleen and a doubtful spot were discernible. And so he continued for another ten days, with a slow (50) and staggering pulse rate, with irregular breathing and with a steadily falling temperature, deeply unconscious to all around him and to all that befell him. Then gradually came the waking, gradually the increase in pulse rate and steadiness, the clearing of the tongue, the diminution in the size of the spleen and the restoration—very slowly—to a comparative condition of “*bien-être*.”

CASE 11.—Again a child aged four years, of a very tuberculous family, other members of which had died of tuberculous disease, was, during an epidemic of typhoid fever, seized with the ordinary symptoms of a meningitis, screaming and vomiting, with a low temperature (100°), with a quick, somewhat irregular pulse, and with obstinate constipation. During the second week she had a very slow (50) and very irregular pulse and irregular breathing; fully dilated pupils, absolutely inactive to light; a right-sided squint; complete unconsciousness, and well-marked “*tache cérébrale*”; but she had a full abdomen, she had loose and suspicious stools, and she had the history of exposure to the typhoid poison. In the third week all her urgent symptoms had disappeared—disappeared quickly—and she is now, so far as I am aware, in vigorous womanhood.

Had either of these cases been presented to me for the first time in the second stage of their disease, and had I not possessed the suspicion which the early symptoms of their malady aroused within me, I would unhesitatingly have regarded them as cases of tuberculous meningitis and written their recovery in indelible letters on the folds of my memory. The difficulties of diagnosis from the lesion of tubercle do not end with its manifestations when attacking the cerebral meninges, for enteric fever may simulate very closely acute tuberculous; of such a simulation this is the record.

CASE 12.—A married woman, with a strong family history of phthisis, was, after having had a slight cough for several weeks, suddenly seized with feverish symptoms and a certain amount of breathlessness. The medical man, who saw her soon after her illness began, believed that she was threatened with pneumonia; but as days passed and she became steadily worse I was asked by him to visit her. Then her condition was as follows: A pale, feeble, very anxious-looking woman, propped up in bed and breathing very quickly (her respiration rate from 40 to 50 per minute) and with apparent difficulty. She was slightly cyanotic and had a short constant cough. Her temperature (afternoon) was 101° (it had varied from 101° to 102°), her pulse quick and small (140) and her skin bedewed with perspiration, of which she had most profuse nocturnal attacks. On examining her chest there was found a slight dulness for two inches under the right clavicle, and in this situation there were audible subcrepitant râles. Over the rest of the chest the percussion note was fairly clear, but throughout the entire area of both lungs were to be heard sibilus and rhonchus, with abundant moist sounds. The cardiac sounds were normal but feeble, and the impulse quite imperceptible. There was enlargement of the spleen, and it was thought that a spot seen on the back might be that of enteric fever. A guarded prognosis was given—what was hopeful in it being founded on the possibility of the existence of typhoid fever—and so it proved. In the third week the temperature began to fall, the chest signs to clear up and the whole condition to improve, and the recovery she made, taken in connexion with her present condition of perfect health, tends to confirm the belief that after all her pulmonary condition was the outcome of the typhoid poison. This is rendered more probable by what her medical attendant told me, that after I saw her grave sanitary defects were found in her immediate environment. What arrested attention in this case—as it does in cases of acute tuberculous generally—were the cyanosis, the rapid breathing and the quick pulse, associated with a comparatively low temperature. I am aware of the cases—not unlike this one in many respects—which Professor McCall Anderson has recorded as good recoveries from acute tuberculous, but I think in the present instance that the detection of even one rose spot and the association of bad sanitary conditions, coupled with the rapidity and the permanence of recovery, tend to support the belief in an anomalous attack of enteric fever.

Whether it be true that new diseases are in process of evolution there can be no doubt of this, that we are now more able to differentiate ailments and that some well-known to us to-day were unrecognised by the profession generally twenty-five years ago. Amongst these is ulcerative endocarditis, the manifestations of which are often not straightforward and its

diagnosis is at times obscure. The typhoid condition which marks it in one of its worst phases leads to its being regarded from time to time as an example of enteric fever, whilst in other cases in certain given circumstances the latter disease may closely simulate it. Thus:—

CASE 13.—A young lady aged twenty-four, in good sanitary surroundings, with no known exposure to zymotic influences, but complaining of rheumatic pains, of breathlessness on exertion and of failing general health, was seized with a severe rigor, intense headache, anorexia and vomiting. Seen on the evening of her attack, she was found to have a high temperature (104.2°), a quick pulse and slightly quickened respiration. She was exceedingly pale, she had a soft mitral bruit not conducted to the back and loud hæmic murmurs at the cardiac base and in the neck. There were no pulmonary signs and no enlargement of the spleen. As days ran she did not improve, her temperature was markedly irregular, her dyspnoea increased, her mitral bruit became louder and coarser, and her spleen slowly enlarged. She had, however, no epigastric pain and no albuminuria, nor had she after the onset any distinct rigors. Diarrhoea then made its appearance, not at first characteristic, but after a time ochre-coloured, alkaline in reaction and foul-smelling. And so during a considerable time, until by daily and careful observation rose spots were discovered and the diagnosis established. She ultimately made a complete but most tedious recovery, during which her cardiac condition improved somewhat, although a soft mitral bruit remained. Engrafted, as this attack of enteric fever was, upon a rheumatic and anæmic girl with evidence of cardiac dilatation, if not of slight mitral disease, and marching, as we know progressive endocarditis often does, by gradual increase in cardiac signs and symptoms—as witness the dyspnoea—it was only natural that for a time the diagnosis should be in abeyance, and I record the case as one of several in which in similar circumstances considerable anxiety as to the true nature of the malady has centred round the cardiac phenomenon.

(To be concluded.)

DISEASES OF THE EYE MOST FREQUENTLY MET WITH IN GYNÆCOLOGICAL AND OBSTETRICAL PRACTICE.¹

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THE eye, from its peculiarity of structure and of function, demands special study and, when disease comes, special treatment; but it is necessary to be careful that specialism shall not go so far as to cause the eye to be considered as a part in the body, but yet not of it. On the contrary, the nutrition of the eyeball is governed at all times by changes in the nutrition of the body as a whole. It is quite a common thing to hear patients remark that their sight is not so good when they are feeling “out of sorts,” and from the earliest times physicians have been alive to the diagnostic and prognostic importance of eye symptoms in general diseases. Long before the ophthalmoscope was thought of, the association of visual disturbances with various constitutional states, and especially with affections of the nervous system, had been carefully noted, and such symptoms as a dilated or a contracted pupil, a strabismus or an inability to close or open the eyelids had a proper value attached to them as aids to diagnosis. It is now known, thanks to recent methods of investigation, that changes in the eye may give the very first indication of the existence of diseased conditions in other parts of the body—e.g., double optic neuritis in intracranial affections, or the retinal changes characteristic of Bright’s disease. By means of the ophthalmoscope the physician can now actually see changes in the bottom of the eye the nature of which in the pre-ophthalmoscopic days could only be guessed at. Instead of applying the vague and unsatisfactory terms “amblyopia” and “amaurosis” to every suspension of visual function, as had to be done before Helmholtz introduced the ophthalmoscope, one is now able to speak definitely and precisely of diseases of the optic nerve, of the retina, of the choroid &c., and so the ophthalmoscope has, as Clifford Allbutt

¹ An abstract of a paper read at a meeting of the Glasgow Gynecological and Obstetrical Society on Feb. 22nd, 1893, and illustrated by coloured lantern slides.

put it long ago, brought about not only "a direct increase of knowledge, but also a great purification of method and of speech."² I wish to draw attention to the frequent association of certain eye symptoms with functional changes in the female genital organs—changes incidental to menstruation and its disorders, to pregnancy and the puerperal state and to the period of lactation. The important changes that occur when the age of puberty is reached profoundly influence the whole organism. In the occurrence of the catamenial discharge there is the development of a function with which the whole system sympathises and one can hardly be surprised that at this time certain eye diseases attain their maximum of frequency. Inflammation of the cornea, of the sclerotic, of the iris and choroid, and even of the optic nerve and retina, have all been noted; and though these affections must, for the most part, be regarded as coincident, rather than dependent, it must be admitted that even an apparently sound eye is markedly influenced by the occurrence of normal menstruation, whilst in a diseased eye the symptoms may be very considerably aggravated at the recurrence of the catamenia.

In a case which I have at present under my care—a woman aged thirty-seven, who has suffered from inflammation of the cornea and sclerotic for eight years, during the last of which she has been under my own observation—the eye is during an inter-menstrual period, with the exception of staining of the sclerotic and opacities of the cornea, almost well, whilst at the recurrence of the menstrual epoch there is a relapse. Two or three days before menstruation begins the eye becomes acutely inflamed and very painful and remains in this condition for the first few days after the menstrual discharge has appeared. Treatment, either local or constitutional, has up till now had very little effect in modifying the course and duration of these inflammatory attacks, which pass off spontaneously, only, however, to reappear as acutely as ever at the next monthly period.

There is no doubt that corneal affections are very frequent about the time of puberty; and if there be inherited syphilis very severe and protracted corneitis may result. Eruptive eye diseases—pustular or phlyctenular ophthalmia—are also very frequent at this time and show their close connexion with the menstrual function by a periodic relapse at the menstrual epoch. Mooren³ relates a most interesting case of a girl of fourteen, who suffered from severe corneitis of both eyes, and who, in spite of the fact that every symptom of her molimina menstrualia was present, could not be brought to menstruate. Every four weeks she was seized with acute inflammation of the eyes, and for a whole year treatment was unavailing. When menstruation at length took place the eyes became quickly well. Apart, however, from any inflammatory disturbance, diminished visual acuteness and contraction of the visual field occur during normal menstruation. Finkelstein⁴ has demonstrated that the limitation in the field of vision begins two or three days before the commencement of the flow and reaches its greatest intensity on the third or fourth day of menstruation, after which the normal state is gradually restored. The degree of limitation varies in different individuals and is always greatest in those cases where the general discomfort—manifested by headache, palpitation and other nervous symptoms—is most pronounced, and especially where the loss of blood is very abundant. He found also that there were disturbances in the colour-sense, and in 20 per cent. of his observations the perception for green was destroyed during the menstrual period.

I shall now pass from the eye affections, which are part of the series of phenomena which in some cases go to make up the clinical picture of normal menstruation, to those which are more or less the result of disordered menstrual function. For the present purpose it will be convenient to arrange them in two groups. There is, firstly, the period of puberty (or the period of sexual development), and, secondly, the climacteric period (or that indicative of the departure of sexual power). The establishment of the menses—development being then at its maximum—must exert an important influence on all the organs of the body, and when, therefore, anything occurs to interfere with the appearance of the catamenia at the usual time, or to cause suppression of the menstrual flow after it has once been established, it is not surprising that such irregularities should make themselves manifest by ocular troubles. In some rare cases a periodical discharge

of blood takes place from some organ other than the uterus and the eye is not exempt from this vicarious menstruation. Lawrence⁵ has recorded the case of a woman who suffered from hæmorrhage into the anterior chamber at the time when her menstrual period was due, and effusions of blood into the vitreous as a result of menstrual irregularities are of by no means unfrequent occurrence, though this is rarer in early life than at the climacteric. The old writers recognised two forms of eye affection, which they attributed to disordered menstrual function—amaurosis menstrualis and ophthalmia menstrualis. The first is a condition whose name gives no explanation of its true nature, and the other has two forms—a graver, said to be produced by suppression of the menses, and a simpler and more chronic, which was connected with retention of the menstrual discharge. Mooren, quoting from Samelsohn,⁶ relates the case of a woman twenty-one years of age, who at the time of her menstruation went to bathe in a cold stream. Her discharge was immediately suppressed, and by the evening she suffered much from a feeling of painful pressure in the eyes and orbits. Twenty-four hours later her sight became dim, and by the end of the fifth day she was completely blind. The loss of sight continued for seven weeks, when, after the re-establishment of the menstrual function, recovery took place.

It is very difficult to explain in a satisfactory way the true pathological nexus existing between the uterine and the ocular condition in such cases. It has been pointed out by Mooren that irritation of any sensitive nerve has a reflex action upon other nerves, either of a similar or of different function, and its influence may be exerted upon bloodvessels the most distant from the point where the disordered action has originated. When one remembers the great nervous and vascular plexuses in connexion with the ovaries and the uterus one cannot wonder at the frequent occurrence of reflex disturbance in distant parts as a result of ovarian or uterine irritation. That vision is disturbed by such a cause is well known, and I need only cite as examples, those visual defects due to dental caries or to the irritation produced by the presence of intestinal worms. But another hypothesis must be mentioned. It has been supposed that toxic substances are eliminated from the body with each menstrual discharge and that, when the normal periodic elimination is interfered with, the poisonous materials retained affect the nutritive power of the blood. Probably both the reflex and the toxic cause have a rôle to play in the etiology of these eye affections in subjects naturally predisposed to nervous disturbances. Connected with amenorrhœa are frequently found various forms of neuro-retinitis. The treatment is obviously to try to restore the catamenial discharge, but in such cases the frequent existence of eye-strain, the result of uncorrected errors of refraction, has led me to the conclusion that astigmatism must be considered as one of the determining causes of the ocular disturbance. Many girls suffering from amenorrhœa also complain of persistent head pain, aggravated by the use of the eyes for near work. This is very frequently due to an ocular defect, in many cases so slight that, by an effort, the patient can exert the ciliary muscle sufficiently to overcome it and thereby attain clear and distinct vision, but at the cost of fatiguing and straining the muscle. In anæmia the ciliary muscle shares in the general constitutional weakness, and the exhaustion, especially in highly strung nervous persons, induces eye-strain, which is, in a large percentage of cases, the starting point of the head-pain. The persistence and intensity of this last are not proportionate to the amount of the error of refraction, as even in the cases where the ocular flaw is slight, and can be overcome by a strong effort of accommodation, the head-pain is frequently very severe. It is obvious, then, that no treatment by drugs will cure such headaches until by the use of appropriate glasses the eye strain has been relieved and the reflex source of irritation proceeding therefrom has been removed. In many instances the improvement is very slow, and until the blood-poverty is completely removed relapses from any over-use of the eyes are not uncommon. In exophthalmic goitre⁷ anæmia or chlorosis is an almost constant accompaniment and disorders of the menstrual function are met with very frequently. The following is a typical case: The patient was a machinist about twenty-four years of age, who, nine months before I first saw her, began, as a result of domestic trouble, some-

² The Ophthalmoscope, London, 1871.

³ Gesichtsstörungen und Uterinleiden, Archiv für Augenheilkunde, 1881, p. 519.

⁴ Ophthalmic Review, No. 73, 1837.

⁵ Diseases of the Eye, 1841.

⁶ Berliner Klinische Wochenschrift, 1874.

⁷ See my paper on Exophthalmic Goitre, Glasgow Medical Journal 1892.

what suddenly to develop all the characteristic symptoms of exophthalmic goitre. Her eyes were very prominent and could with difficulty be covered by the closed eyelids, but both the Stellwag and the von Graefe symptoms were absent. The thyroid gland was much enlarged, with the swelling most pronounced on the right side. Palpitation was very distressing and the pulse so rapid and irregular that it could not be accurately counted, but as far as could be made out there was no organic heart affection. She was steadily losing flesh and expressed herself as feeling very ill. The menstrual function was in abeyance. After treatment for more than a year by rest, nourishing food and general blood tonics her condition was very much improved. The exophthalmos, though distinctly noticeable, had become much less, and the swelling of the thyroid was greatly diminished and felt firmer on palpation, the right lobe being still the larger. The pulse was steady and regular and beating below 100 per minute. Tremor had practically disappeared, and there had been a considerable gain in weight. There was still nervousness and a tendency to excitement, but the patient was now able to be regularly at her employment and stated that her own feeling was that she was quite well. She still suffered from amenorrhœa. I again saw her on Feb. 13th, 1893, and found that she had been regularly at her work and had steadily gained in strength. She told me that very shortly after the re-establishment of the menstrual discharge, which had taken place nine months previously, the eyes became less prominent and the swelling in the neck almost entirely disappeared, and that she "felt quite different." The very great improvement which followed the return of the menses is worthy of note. As I have said, it is difficult to establish a reflex connexion between the eye and the genital organs, although one is almost forced to admit the probability of its existence. In this connexion the following case is interesting.

A married woman aged forty-seven, whom I first saw in October, 1887, complained of severe head-pain with dimness of vision. She read letters in No. 8 Jaeger with the right eye and in No. 6 with the left, and ophthalmoscopic examination showed that both optic discs were congested. Seven years before, when prostrated with grief on account of the death of her husband, she became suddenly blind, and for three or four weeks afterwards the power of vision came and went. After her recovery her vision troubled her only at the monthly periods, when, the more severe her sufferings from dysmenorrhœa, the more was her vision affected. A month after I saw her first her vision had deteriorated to No. 14 for the right and No. 8 for the left eye. The field of vision was contracted both for white and for coloured objects, and the ophthalmoscope revealed slight exudation along the coats of the bloodvessels where they passed over the optic disc. In March, 1888, at the monthly period, she suddenly lost sight in both eyes, and when I saw her she could not distinguish light from shade, but the pupils were active, of normal size, and equal, and the ophthalmoscope revealed no further change in the optic discs. Her eyelids constantly twitched. This attack of blindness came on suddenly and was accompanied by delirium for the first twenty-four hours; there was no paralysis and all that the patient complained of in addition to her blindness was great pain on micturition. After a fortnight vision returned as suddenly as it had disappeared, and by April the right eye was equal to 18 Jaeger and the left to 16 Jaeger. On Feb. 13th, 1893, I found that vision was exactly the same as it was on the day when I first saw the patient. Her optic discs were somewhat pale, but not atrophied, and the field of vision was practically normal. This occurred at about the time of the menopause and bears some resemblance to cases described by Förster under the name "kopiopia hysterica."

The attainment of the climacteric has very frequently, though not necessarily, a profound influence on the general health, and, until the new order of things is thoroughly established, causes the organism as a whole to suffer from excitement of the circulatory, and irritability of the nervous systems. Congestive changes, marked by painful and often causeless flushings of the head and face, by head-pain, and by giddiness, are very frequent; and when one recalls the close and extensive meshwork of the bloodvessels of the choroid, it is not surprising to find eye symptoms prominent. The conjunctiva is frequently congested, and the irritation of the enlarged bloodvessels gives rise to a feeling as if sand were in the eyes. As a result of transient hyperæmia of the choroid the patient complains of pain in the eyes, and these are tender on pressure and intolerant of

light. In subjects predisposed to it, this surcharging of the choroidal vessels with blood may culminate in an attack of acute glaucoma. Rupture of intra-ocular bloodvessels and effusion of blood into the vitreous are not unfrequently met with. The hæmorrhage may be so copious that ophthalmoscopic examination affords no information as to the condition of the fundus; but where examination is possible the optic disc is seen to be red and swollen and its outline indistinct. The veins are large and tortuous, whilst the arteries are small and the fundus generally is bespattered with hæmorrhages, of which those in the inner layers of the retina present a flamelike appearance, whilst those in the outer are round or irregular in shape. Retinal hæmorrhage is often a symptom of degeneration of the bloodvessels generally, and is therefore a danger signal giving warning of the probability of the occurrence of cerebral apoplexy in the near future. At the same time visual defects, such as scotomata or hemianopsia, may result from cerebral hæmorrhage without any change in the fundus of the eye being visible. In forming a prognosis in a case of retinal hæmorrhage therefore, it is necessary to pay heed to the general condition of the patient as regards the state of the bloodvessels, as well as to the size and site of the blood clots.

In the last number of his Archives⁸ Mr. Jonathan Hutchinson draws attention, under the name of post-marital amblyopia, to a form of almost complete blindness (the result of frequent sexual indulgence) where no changes are visible on ophthalmoscopic examination and where there are, as a rule, no concomitant nervous symptoms. In the three cases quoted—all in men, males seeming to be particularly subject to injury to vision from sexual excess—the recovery was rapid and complete after removal of the cause. No exactly similar cases have, so far as I know, been noted as occurring amongst women, but when pregnancy takes place the nutrition of the eyeball may, in different ways, be more or less seriously affected. Physiological research has demonstrated that, whilst during pregnancy there is an increase in the actual volume of the circulating blood, there is at the same time considerable deterioration in its quality, owing to a diminution in the red corpuscles and the albumen, and an increase in the white corpuscles, the fibrin, and the water. Changes due partly to malnutrition, the result of the alteration in the quality of the blood, and partly to the local irritation produced by the pressure of the enlarged uterus upon the surrounding structures, occur in the nervous system as a whole, and it is surprising, therefore, that the eyes, which so readily respond to any disorder of the vascular or nervous systems,⁹ are not more frequently affected than is actually the case, for, according to Winckel's statistics,¹⁰ the proportion is less than 2 per cent. Cases which are the direct result of blood poverty—e.g., failure in the power of accommodation, ulceration of the cornea &c.—will be considered later. By far the most important group of eye affections in pregnancy is that dependent on or associated with albuminuria—retinitis albuminurica of pregnancy. It is now known¹¹ that albumen exists in the urine in more than 20 per cent. of pregnant women, and in the case of primiparæ the percentage is considerably higher. The presence of albumen in the urine cannot therefore be looked upon so seriously when it occurs during pregnancy as it might be if its presence were detected in the non-pregnant condition; and in many cases it is unaccompanied by special symptoms. Before giving a prognosis, therefore, it is well to make a careful examination of the urine, not merely with reference to the amount of albumen it contains, but also as to the quantity passed in the twenty-four hours, its specific gravity, the percentage of urea, and the presence or absence of tube casts.

In uræmic amaurosis the patient, after having suffered for some time from the usual symptoms of uræmia, suddenly complains that everything is becoming dark, and in a few hours blindness is complete. On ophthalmoscopic examination no retinal lesion is discoverable; in a short time, provided the patient does not succumb to the uræmic attack, vision is restored to the normal. In one case of uræmic blindness which I had an opportunity of examining by means of the ophthalmoscope during an attack, the retinal arteries were

⁸ Archives of Surgery, January, 1893.

⁹ Blodig (Zeitschrift für Wiener Aertze, February, 1883) mentions the case of a woman in whom convergent strabismus was the first symptom of pregnancy; and Rampoldi (Rapporti morbose esistenti fra l'apparato sessuale e il visivo, Milan, 1881) mentions the case of a patient who became blind during her first, deaf during her second, and dumb during her third pregnancy.

¹⁰ Berichte und Studien, Dresden, 1876.

¹¹ Leishman, System of Midwifery, Glasgow, 1880.

seen to be smaller than normal, and it is easy to understand how a similar contraction of the arterioles in the brain, brought about by the presence of excretory matters circulating in the blood, may act on the visual centres so as to produce for the time being a complete suspension of function. That the lesion in uræmic amaurosis cannot be located in the optic nerve, but higher in the brain, is shown by the fact that, as a rule, the pupillary reflexes are preserved. The presence or absence of the reaction of the pupils to light is, indeed, an important factor in prognosis, as in those cases in which they are dilated and fixed, the recovery, although complete for the time being, is apt to be followed by frequent relapses, which end in total blindness from atrophy of the optic nerve. Moreover, the degree of the visual defect also affords perhaps the safest of all prognostic guides in enabling the physician to judge how far an individual patient can safely tolerate the presence of urea in excess circulating in the blood.

In albuminuric retinitis proper there may be gross retinal lesions detectable by the ophthalmoscope, and yet the patient may make very little complaint of defective eyesight. In nearly all cases the vision is gradually reduced, but is seldom completely destroyed. Once sight is lost, however, the defect differs from that due to uræmia in the fact that it is more or less permanent, and, when complicated by uræmic poisoning, may pass for the time being into complete blindness. A typical case of albuminuric retinitis presents a very characteristic ophthalmoscopic picture. The pathological changes are, for the most part, confined to the central parts of the fundus. In addition to the usual signs of retinitis there are a number of minute, glistening, brilliant white spots arranged in a more or less complete star around the macula as a centre. The changes in the optic disc are of an inflammatory nature and vary in degree from a simple obscuration of the edges of the disc to a condition in which the papilla has become so swollen that the appearances presented are with difficulty to be distinguished from an inflammation of the optic nerve due to cerebral disease.

In the more chronic cases of Bright's disease oedema may be entirely absent, and a slightly increased vascularity of the optic disc, associated with the presence of a few white spots round the macula, may be all that can be detected on ophthalmoscopic examination. The appearance of the disc in such cases resembles that seen in various forms of neuritis due to the introduction of poisons from without—e.g., lead, alcohol &c.—and is probably brought about by the irritant action of the morbid poisons which are generated within the system and circulate in the blood as a result of the renal inadequacy. In an ordinary case of renal disease the occurrence of albuminuric retinitis adds very considerably to the gravity of the prognosis, but in the albuminuria of pregnancy recovery is frequent. Power¹² records and gives drawings relating to a case in which after an abortion at the seventh month recovery took place, though the vision had been reduced to little more than a mere perception of light, and the quantity of albumen amounted to about one-sixth. In such cases, too, one eye only may be affected. During pregnancy separation of the retina may occur by itself or may complicate albuminuric retinitis, but even this grave complication, as a rule so hopelessly fatal to vision in ordinary circumstances, admits of more favourable prognosis in the pregnant woman. I know of a case where there was a retinal detachment in both eyes and in which vision was restored after the confinement. Although the treatment of such cases ultimately falls almost entirely into the hands of the obstetrician, the ophthalmoscopic examination may afford valuable indications. When hæmorrhages are present in the retina it is manifest that there is an altered condition existing between the blood, the bloodvessels, and the surrounding parts, and our therapeutic resources must be directed to the restoration of the lost balance between these. Moreover, the occurrence of retinal lesions indicates an advanced condition of the renal disease, and this raises the question as to the induction of abortion or of premature labour, on account of the danger to the life of both mother and child. Albuminuria occurs most frequently during the last few weeks of pregnancy, and at this time also the eye symptoms for the most part appear, so that, unless the inflammation of the retina be unusually severe, the induction of premature labour is in the majority of cases hardly warrantable. It is quite different, however, in those cases in which albuminuria and eye symptoms are present early in the pregnancy, as in such cases the danger to the

mother's sight from the prolonged retinal inflammation, the danger to her life from the occurrence of convulsions, and the danger to the child from the uræmic state of the blood, abundantly justify the production of abortion.

Embolism of the central artery of the retina occasionally occurs during the puerperal state. Here, after the violent inflammation has passed away, the optic disc becomes pale and atrophied, and, on account of the absence of anastomotic connexions, the blood-supply is, when a block occurs, completely cut off from the retina, and blindness, sudden and complete, is the result. McKenzie¹³ mentions several cases in which, after delivery, there was ophthalmitis due to "inflammation of the uterine veins and the introduction of pus into the circulation." Constitutional symptoms quickly follow in such instances and as a rule the patient dies of exhaustion with all the signs and symptoms of pyæmia. When there has been severe post-partum hæmorrhage marked diminution of vision has occurred, followed by atrophic changes in the optic nerve, ending in complete blindness. Complications at the confinement may also have an injurious effect on the eyes of the child, which may be hurt by the application of the forceps even in the hands of the most skilful accoucheur. Ophthalmia neonatorum also deserves notice on account both of its frequency and of its disastrous results. It has its origin in specific contagion, and in virulent cases a special micro-organism, called by Neisser the "gonococcus," is found both in the vaginal secretions of the mother and in the purulent discharge from the eyes of the infant. In cases that are, from the first, treated carefully there ought certainly to be recovery, but neglect will invariably result in corneal ulceration, which may, and probably will, completely destroy vision. Care should be taken by disinfecting all vaginal discharges to prevent, if possible, inoculation during labour or immediately after birth; and Credé, by systematic prophylactic treatment, reduced the percentage of cases of ophthalmia neonatorum in the lying-in hospital at Leipsic from 7.5 to 0.5. Curative treatment should be directed to keeping the eye thoroughly clean (any weak antiseptic solution, such as bichloride of mercury, 1 in 10,000, or a saturated solution of boracic acid will do), the bathing being carried out thoroughly every hour and special care taken that the stringy muco-pus which gets lodged in the upper and lower conjunctival cul-de-sac be completely removed.

I have only time to refer very briefly to those eye affections which are more or less the result of lactation. Whether it be mere coincidence or not, cases are met with every now and then where blindness, due to atrophy of the optic nerve, occurs in women who have nursed several children in rapid succession; but by far the most frequent conditions met with are functional disturbances due to impairment in the power of accommodation. It is not surprising that the effort to secrete, for several months, milk sufficient for the nourishment of a healthy infant should not be accomplished without considerable exhaustion of the system. The muscular apparatus of the eye shares in the general weakness, and a patient who, previously to the birth of her child, was able to see clearly and comfortably, now complains that small print gets blurred and confused when looked at, and that the effort to read is accompanied by distressing sensations in the head and by pain, lacrymation, and even redness in the eyes themselves. That these symptoms are due to weakness in the power of accommodation and convergence is not difficult to understand when one recollects the mechanism by means of which these acts are accomplished. Obviously, therefore, long-sighted women suffer most frequently. It will at once be evident that the proper and only treatment in such cases is to supplement the power of the ciliary muscle by the use of convex glasses to be worn for all near work; and, as a rule, when once the spectacles are properly adjusted the unpleasant symptoms gradually disappear, and the relief obtained is real and lasting. In addition, every effort should be made to improve the general health, and in extreme cases it is necessary to wean the child. A scratch on the cornea—not an unusual thing for a mother to receive from the nails of her infant—is, of all the slight injuries to the eye, one of the most difficult to heal. There seems in some cases a marked tendency to suppuration and accumulation of pus in the anterior chamber. I simply mention this for the purpose of emphasising the fact that even the most trivial injury to the cornea of a woman who is suckling a child demands prompt treatment. I have seen episcleritis appear

¹² Transactions of the Ophthalmological Society, vol. viii.

¹³ Diseases of the Eye, London, 1854.

for the first time when the health of the patient was enfeebled by prolonged lactation and can confirm Power's observation that women who are nursing children are predisposed to the occurrence of "obstruction of the lacrymal ducts and lacrymal abscess."

I have drawn attention to this subject at considerable length, because, although there are several special monographs¹⁴ which treat of it exhaustively, yet in the ordinary text-books it is dealt with very briefly.

Glasgow.

A CASE OF MELANCHOLIA; SUDDEN ILLNESS AND DEATH.

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A MAN aged forty-five, married, was admitted to the Royal Edinburgh Asylum on May 25th, 1889. A sister of the patient had had an attack of mania and had recovered. He had had a precisely similar attack of hypochondriacal melancholia six years before admission, the symptoms not being quite so severe, and after a year's duration he had recovered perfectly and had remained well for five years. He was a thick-featured, fairly well nourished, rather lymphatic man, with a most woful expression. He affirmed that nearly every organ of his body was diseased, that his bowels never acted, that he was dreadfully weak and ill, and, in fact, that he was dying. Repeated physical examinations always gave negative results. His bowels were only slightly costive, and it seemed evident that he greatly exaggerated his unpleasant sensations. He was, however, sleepless and he had dyspepsia, as was shown by a furred tongue and by very occasional vomiting, the latter being at least once induced by his putting his finger down his throat. Under treatment he at first rapidly improved mentally and gained in bodily weight; he attended and enjoyed the weekly dances, played lively airs upon his violin and seemed a most promising case. Unfortunately a relapse occurred. Not satisfied with two medical visits a day, he used to send letters to me as well. On Feb. 11th, 1890, he wrote: "I endure unsufferable agony; I fear to perish in this terrible state; I entreat you to examine my stomach and bowels." At that time he had gained twenty-one pounds in weight since admission; he slept fairly, his appetite was good, his dyspepsia was better and he was doing garden work, but he had a craving to be examined, he had a constant wish to take purgatives and other medicines, and he even asked for operative treatment.

On Feb. 14th I was hastily summoned to him. After having had a good breakfast he had been seized with violent abdominal pain, and when seen he was kneeling in a bent position on a chair moaning and crying out with the severity of the pain. He was extremely restless and greatly agitated. There was considerable collapse, the pulse being thready and only 40 per minute, a cold perspiration covered his skin and the extremities were livid and cold. The pain was greatest over the epigastric region, but a proper examination was impossible as the muscles were rigid and the patient was quite doubled up as well as being very restless. Under treatment he improved considerably, so that, taking into consideration his great tendency to exaggerate, a hopeful view was taken of the case. By 2 P.M. the pain was much less; the pulse, though weak, was 80 per minute; the temperature was 97.4° F.; and although he was exhausted his general condition, on the whole, seemed improving. During the night he again became restless, was weaker, looked very anæmic and had a fainting fit. In the morning he began to vomit and this continued till his death, which took place in the evening. The vomited matter was chiefly clotted milk, brandy and a little bilious mucus, but it was never stercoraceous. Early in the afternoon he was seen in consultation with Dr. Burn-Murdoch. He had rapidly become worse; the pulse was not to be felt at the wrists, the expression was anxious and deathly pale, the vomiting continued, the respiration was deep and sighing, and generally he was exceedingly weak. The pain was now most severe over the lower part of the abdomen. Normal fæces came away when an enema was

given. He died at 8.10 P.M., thirty-five hours after the onset of the acute symptoms. The diagnosis was perforation with intra-peritoneal hæmorrhage.

At the post-mortem examination, performed by Dr. W. H. Barrett, it was found that about three and a half feet of the small intestines had become strangulated in consequence of passing through what appeared to be a congenital slit in the mesentery.

Remarks—This case once more emphasises the fact that delusions, especially those relating to the viscera, often have real bodily causes for their foundation. The theory may be advanced that the intestines had always, or at least for some time, moved backwards and forwards through the congenital slit. The discomfort and uneasy feelings thus produced, acting upon a hereditarily weak brain, had induced the mental illness. Lastly came strangulation and death.

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ASSOCIATED MOVEMENTS OF THE UPPER EYELID AND LOWER JAW.

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SYNCHRONOUS MOVEMENTS of the upper lid and lower jaw have during recent years been frequently recorded, and quite recently Dr. O. Bull of Christiania has published one such case in the *Archives of Ophthalmology*.¹ The patient, a boy aged sixteen, was suffering from congenital ptosis of the left eye, and it was observed that when he opened his mouth, in eating or speaking, there was a corresponding upward movement of the left eyelid. To avoid the disfiguring appearance of the ptosis as far as possible he generally kept his jaws apart. This upward movement of the lid was also found to occur when he threw his head back. Dr. Bull suggests the hypothesis that the contractions of the levator palpebræ are reflex or associated. In a remarkable case of left congenital ptosis reported by Mr. Marcus Gunn² there was an

FIG. 1.



associated movement of the left external pterygoid muscle and the left levator palpebræ. Any lateral movement of the jaw in the direction of the right side (contraction of the left external pterygoid), as in eating or speaking, caused an upward movement of the left lid. The case was thoroughly tested by a committee consisting of Dr. Gowers, Dr. Stephen Mackenzie, Mr. Lang and Dr. Abercrombie, and the conclusion they arrived at was that "some of the fibres of the levator palpebræ portion of the third nerve arise, not from the nucleus of the third, but from that of the fifth." The following notes of a case in my own practice seem of interest in connexion with this subject.

A child aged two years and two months was brought to the Bath Eye Infirmary in May, 1891, suffering from congenital

¹⁴ Amongst these may be mentioned Power's Bowman Lecture, *Transactions of the Ophthalmological Society*, vol. viii.; Cohn's *Uterus und Auge*, Wiesbaden, 1890; Oursel, *Contribution à l'Étude des Affections Oculaires dans les Troubles de la Menstruation*, Paris, 1885; and Berger, *Les Maladies des Yeux*, Paris, 1892.

¹ Vol. xxi., p. 354.

² *Transactions of the Ophthalmological Society*, vol. iii., p. 283.