pation. In cases of icterus, with suspension of the biliary secretion or excretion, announced by the want of colour in the fæces, the cholesterine is even more concentrated, and we have found it three or four times greater than in a state of health. When we come to treat of this disease, we shall give the results of these calculations. If icterus, on the contrary, accompanies a more abundant secretion of bile, which is more rare than the preceding case, the cholesterine is not increased; it either remains normal, or diminishes. We have also observed some facts of this kind.

VIII. *The albumen of the serum diminishes in a considerable manner, under three particular circumstances, which are: Bright's disease, certain affections of the heart with dropsies, and severe puerperal fevers.*

We shall content ourselves here with only mentioning this law, and recur to its development when we come to consider the diseases in particular, merely observing that the facts which we possess upon this subject are not sufficiently numerous to enable us to establish it in a definite manner.

(*To be continued.*)

ON MYOPIA AND PRESBYOPIA.

By William White Cooper, Esq., F.R.C.S.,

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Considering the frequency of myopia, and the inconvenience it causes to those who suffer from it, sufficient attention has not, in my opinion, been paid to its causes, its varieties, and the treatment applicable to each. As a general rule, it is considered sufficient when a person complains of being near-sighted to recommend him to pay a visit to an optician, and be provided by him with such glasses as will suit the case. Although, perhaps, in the majority of instances such advice would be good, there is a description of myopia in which it would be decidedly injurious.

The distance at which such objects as small print can be distinctly seen varies somewhat in different individuals, but from ten to twelve inches may perhaps be regarded as the average. From seven to eight inches is probably the nearest distance of distinct vision: when objects are habitually brought nearer to the eye than this, the person may be considered to be short-sighted. I may here mention, that the reason myopic individuals can see better by bringing objects near to the eye, is as follows:—In myopia, the rays of light being concentrated to a focus before they reach the retina, pass on and form a confused and indistinct image upon that membrane. It is a law in optics, that the nearer an object is brought to the eye the more divergent are the rays flowing from that object, and in proportion as they diverge, so is the point at which they combine to form a focus more distant; consequently an image, which at ten inches would be formed before the retina, will be thrown back upon it by the lengthened focus if the object is held at the distance of only four inches, and so a distinct image be afforded.

When young persons are near-sighted, the phenomena generally arise from too great a convexity either of the cornea, or possibly of the crystalline lens, so that the rays are too much refracted, and are brought to focal points too soon. But there is another affection which has been passed over without sufficient notice, namely, the loss of power of adapting the eyes to distant objects, from long exertion of the organs upon near objects. That a power of adjustment to distance exists in the eye, cannot be doubted; indeed, any one can convince himself of it by the following simple experiment:—Let him fix his eyes upon this page, or any other near object, for a minute or two, then let him suddenly raise them, and look at some object at the distance of twenty or thirty feet. For the space of half a second he will not be able to see it distinctly, but will be conscious of a change taking place in the eye; and as this is wrought, the object will become distinct. After regarding it for a time, let him look again at the page, and the same momentary confusion, followed by distinctness of vision, will be observed. If, then, a person is constantly employed in reading, microscopical observations, or other pursuits requiring long-continued and close application, he will become, I believe, not strictly short-sighted in the usual acceptation of the term, for he does not hold objects nearer to the eye than usual, but will find that he discerns distant objects less and less distinctly. The explanation of which is, that the eyes being exercised so much at the focus for near objects, lose the power of adjustment to the focus for distant objects. If this person resorts at once to glasses, he will unquestionably obtain relief, but the disease will become confirmed by the eyes having supplied to them, by artificial means, that power which is properly inherent in them, but which has been lost by disuse.

Under these circumstances I would recommend that such persons abandon their studies, or other pursuits, which have caused the mischief; that they should go into the country, and there exercise the eyes as much as possible upon distant objects—shooting, marking game, &c., strengthening the body and the eyes at the same time, by which means the general health will be improved, the system invigorated, and the defect in the eyesight gradually diminished.

In the selection of glasses for cases to which they are appropriate, the greatest care and judgment are required to choose just that particular power which will enable the person to see objects clearly, and yet without the slightest sensation of fatigue to the eyes. The glasses employed in myopia are double concaves, and each side should be accurately ground to the same amount of concavity. In the first instance, those of the lowest power, or in other words, those in which the curves are portions of the largest spheres, should be employed; and so long as these enable the person to distinguish the outlines of objects distinctly at about forty or forty-five feet, he should not have recourse to a higher power; for if he rashly increases the power, or if he begins with too high a number, he will find that he cannot go back, but that the eyes continually crave for a still further increase; whereas by selecting in the first instance proper glasses, and remaining satisfied with the assistance they afford, the individual may go on for many years without finding it necessary to increase the power.

Single eye glasses are very injurious, as by throwing a greater amount of labour upon one eye than on the other, the one is strained, whilst the other has not its due share of exercise. Between the ages of forty-

five and fifty, it is a very common thing for persons to find that they are unable to see near objects with that distinctness which was formerly their wont, especially by candle light, but their power of discerning distant objects is not affected. This depends upon a change in the refractive powers of the eye—a diminution in its convexity—in consequence of which the rays from near objects are no longer brought to focal points upon the retina, but beyond it; as however, the focal distance of rays proceeding from distant objects is shorter than that from near objects, the former are still seen distinctly, as the image from them is formed exactly upon the retina.

Opticians occasionally press glasses upon persons who do not stand in need of them, under the attractive title of "Eye preservers." This term is however improper, as the utmost spectacles can do, is by correcting the alteration in the refractive powers, to prevent the patient from straining his eyes, especially in reading at night, when the deficiency is most felt. Double convex glasses, by lessening the divergence of the rays proceeding from near objects, are proper in presbyopia;—but here I must repeat the caution as to the adoption and choice of spectacles: if recourse is had to them too soon the sight will be injured; if on the other hand vanity, or other considerations prevent a person resorting to them when the eyes really require their aid, the straining of those organs at every attempt to discern near objects will be equally hurtful. When then their assistance is evidently required, the person should begin with the lowest number, and try the different powers until he meets with that which will enable him to see and read with comfort, and without the slightest fatigue or straining of the eye.

Medical men are frequently asked the question—"What tint is the best for coloured glasses?" Some recommend green, others blue, but upon the whole I prefer the "neutral tint," for the following reasons:—After looking through green glasses for some time, on their being removed, objects will appear of a reddish hue, and blue glasses are succeeded by a yellowish tinge. This depends upon the law of "accidental or complementary colours," of which Sir David Brewster gives the following explanation:—"When the eye has been strongly impressed with any particular species of coloured light, and when in this state it looks at a sheet of white paper, the paper does not look white, nor appear of the colour with which the eye was impressed, but of a different colour, which is said to be the 'accidental' colour of that with which the eye was impressed. When the eye has been for some time fixed on a red wafer, the part of the retina occupied by the red image is strongly excited, or as it were, deadened by its continued action. The sensibility to red light will therefore be diminished; and, consequently, when the eye is turned from the red wafer to the white paper, the deadened portion of the retina will be insensible to the red rays which form part of the white light from the paper, and consequently, will see the paper of that colour which arises from all the rays in the white light of the paper but the red; that is, of a bluish green colour, which is therefore the true complementary colour of the red wafer." In like manner the complementary colour of green is violet red; that of blue an orange. Neutral tint being of no definite colour, does not produce the above effect, and as it simply subdues the light, is less likely to excite the eyes. It is therefore, in my opinion, the best.

2, Tenterden Street, Hanover Square.

CASE OF PLACENTA PRÆVIA: EXTRACTION OF THE PLACENTA BEFORE THE CHILD: RECOVERY.

Sir,

If you consider the following communication worthy a place in the Provincial Medical and Surgical Journal, have the goodness to insert it.

Your obedient servant,

W. C. WILKINSON.

Spalding, July 10, 1845.

I have read with great interest the cases of placenta prævia, which have from time to time appeared in the Provincial Medical and Surgical Journal, related by Dr. Radford and Professor Simpson.

In placental presentation, attended with excessive hæmorrhage, they strongly recommend the separation and extraction of the placenta, previous to the delivery of the child. The great advantage of the plan recommended by them, struck me so forcibly, that I determined to adopt it on the first occasion which might present itself.

I was on Saturday, the 7th of June, at twelve p.m., called to a patient, a distance of five miles from this place, and whom I had not previously known. I found her almost in a state of syncope. On enquiry, I astertained that she was between six and seven months advanced in pregnancy. Three weeks previous to my being sent for there had been, I was informed, very great hæmorrhage, which had continued, more or less, up to the time of my seeing her. On the evening of the 7th it had been very considerable; and previous to my seeing her, excessive. I found the os uteri dilated to the size of something less than a five-shilling piece; the placenta presenting; the hæmorrhage excessive; the pains very feeble; she was greatly exhausted; the pulse scarcely perceptible; the countenance blanched, and I felt that she must sink. I directed some brandy and water to be got down immediately, and also a scruple of ergot of rye. I passed first three fingers, and with as little delay as possible, the whole hand, into the uterus; the gush of blood was at first great; the placenta, however, was quickly and completely detached, and the hæmorrhage *almost at once* ceased. I waited a while with my hand in the uterus; I then brought away the placenta, and immediately re-introduced my hand, with a view of bringing on contraction. The head of the child presented; I turned; but feeling that my patient was not in a state to bear immediate delivery, I waited an hour and a half; she then having somewhat rallied, I delivered. She remained during the first two or three days in a most exhausted state, from which, however, she gradually recovered.

I feel satisfied, had the usual plan been adopted in this case, so great had been the hæmorrhage previously to my seeing her, she must have sunk; and my chief