With regard to the drachm there will, moreover, be this strange inconsistency: it will be the eighth part of an ounce avoirdupois, and will therefore be exactly twice as heavy as another weight of the same name, viz., the drachm avoirdupois, which is the eighth part of the troy weight.

One of the immediate consequences of the proposed change will be, that an entirely new set of brass weights will be required by every general practitioner and druggist in the kingdom; all the old weights will become valueless.

Be it observed, that the inconveniences which have thus been pointed out are not the immediate consequence of the praiseworthy aim of the Committee to get rid of the confusion between the two ancient sets of weights—the troy and avoirdupois pounds and ounces; they are not the necessary consequence of substituting these avoirdupois weights for the corresponding troy weights, but are the consequence of an endeavor to effect the division of the ounce avoirdupois into 480 integral parts. It seems to me that this object is not of so essential an importance as to justify the introducing new elements of confusion into our English system of weights.

It may, perhaps, be worth while to point out a plan by which all these inconveniences might be avoided. This may be done simply by ceasing to use the ounce in prescriptions; of course, I mean the ounce in weight, not the fluid-ounce, which is a measure, and with which it is unnecessary to interfere. Let the quantities of solid substances be prescribed in drachms, scruples, and grains, as such are now in daily use. When larger quantities are required, they can be written in drachms; or, if a very large quantity is concerned, they can be expressed by the pound of 7000 grains, which is an exact multiple of the drachm.

Perhaps a still better (and the simplest) plan would be, for all quantities less than a pound, to prescribe in grains alone; as, 2 drachms, 3 scruples, 5 grains, &c.

The calculations between large and small quantities would always be easy, because the standard pound is a large round number (7000) of grains. We should have weights of 100, 200, 500, and 1000 grains, such as are now occasionally used in scientific investigations. There would be no difficulty in writing our prescriptions. Five hundred grains (gr. p.) is as easily written as 5. Fifty, or a hundred, or a thousand grains, are likewise easily written, either in the ordinary figures, or as gr. s., gr. c., or gr. x.

As the grain would not be changed, all the brass weights now in use for dispensing might still be used. A single set of the small weights might be made to serve for dispensing any drug not exceeding 250 grains in weight. If any new weights were needed, they would be one of 300 grains, and one of 500 grains; and these would only be required in cases in which ounce weights are now used. No other weights would be needed for dispensing and compounding on a moderate scale; and if larger weights were needed, they would be the ordinary avoirdupois pound, half-pound, and quarter, which are in common use in the country shop and most druggists, and which weigh respectively 7000, 3500, and 1750 grains.

As the intentions of the Pharmacopoeia Committee have not yet been published on authority, my remarks may appear premature. I have no intentions to make use of their authoritative publication to wait until it might be difficult or impracticable to have them reconsidered.

ILLUSTRATIONS OF THE USE OF THE OPHTHALMOSCOPE.

By William Martin, F.R.C.S., late Professor of Ophthalmic Surgery in the Calcutta Medical College.

[Continued from page 509.]

CHOROID.

Congestion of the Choroid may be diagnosed by a hyperaemic state of the choro-capillary layer. Chorioid inflammation, in various degrees, may then be expected to ensue, and to cause atrophy of the pigment, which may result in the formation of pigment patches, or of pigmented spots.

In the first instance, we may find an unusually pale condition of the fundus. It does not light up well, and the appearance is rather of a pale orange-yellow than the natural bright pink colour. We shall be likely, also, to find some discoloration of the choroid; it becomes of a uniform greenish patches in parts. If these appearances last long the disease progresses to disorganisation. The effects on vision will be more evident according as this disorganisation—whether it be maceration of the pigment, or anything else—affects the macula lutea, or its immediate vicinity. The yellowish tint of the fundus becomes of a paler hue. We see the choroidal vessels through the retina, which before only formed part of a uniform red field. After a time we cannot distinguish the vessels. In the second, we see few, if any, pigment spots, of the disorganization of the choroid, and want of pigment; at the same time the retinal vessels covering these become more tortuous, and probably varicose.

This last, is called maceration of the pigment, there are strong grounds for thinking invariably leads to atrophy of the choroid and retina. According to Desmarres the patches arising from disorganisation, the result of choroidal disease, are either rounded, or ovoid in form; the former being of a rounded form; the exudation patches being almost always of an elongated, or oblong form. The pigment becomes collected into spots, which look dark, and have jagged edges. Between these pigment spots are often portions, red from extravasated blood. We may have, at the same time, patches from disorganisation and the other form. See Cases of Subacute Choroiditis, in Desmarres, at pages 412, and 421.

Choroidal Congestion is generally serious according to the length of time it has lasted.

Hypoaemia, of an acute character, is a concomitant of most internal ophtalmo-pathological conditions; and is in many cases remediable, at least he is successful in some degrees. The exudation patches, which are so rare in choroidal affections, besides having an elongated form, like that of a fillet, and usually present a colour in distinct contrast with the white rounded patches, indicating disorganisation, absorption of pigment, and oblitteration of the vascular layer of the membrane.

Subacute Choroiditis, which is often either a primary disease, or a concomitant of other internal affections, when it has become advanced is known by a peculiar appearance, situated in immediate contact with the optic papilla. We shall find this part surrounded, totally or partially, by a patch, which begins by being semilunar, apparently prominent, but in reality concave. This is often far from being regular in its outline; it is jagged too at the borders; and if the disorganisation has gone to any extent, it is in turn partly surrounded by a radiating mark or border, arising from deficiency of the choroid, and accumulation of pigment in this part. As the disease proceeds, this white patch, or arch, extends, forming at length a complete circle, but of irregular breadth, round the papilla.

In bad cases, the papilla looks as if concealed in a large white patch, having the appearance of a double cone; and if the disorganisation proceeds, we shall have the state called posterior, or sclerotic staphyloma; when, in consequence of the total absence of the retina and choroid tunic, we see only the sclerotic beyond; or we may see it through a transparent retina. This is shown by our observing the retinal vessels traversing this white patch.

The entire absence of pigment epithelium, and other elements of the choroid, as well as of the retina, which has been noted in these and similar cases, by Desmarres, and other observers, is a well known fact; and the author states that in twenty-three instances he found the choroid a continuous membrane. (See Hogg On the Ophthalmoscope, page 80.)

Apoplexy of the Choroid. We often find by itself or in conjunction with the deep-seated inflammations, apoplectic or bloody effusions. These may be in the form of a red patch, which may evidently raise the retina; there may be several of these, of different sizes, scattered over the fundus, and they may traverse the retina and pass into the vitreous humour, where they may become diffused, or appear as distinct clots. These clots are capable of absorption, and the time occupied in this process varies much in different cases. One day they disappear rapidly absorbed. While undergoing this process, they lose their bright red appearance, and become more or less brown; but those which remain unabsobered a long time, often retain their bright red hue, and are capable of being absorbed by the blood vessels. These cases appear as though the choroid is seceded from the blood vessels, and there is a perfect disorganisation of the choroid and retina, and the appearance of pigment. (See Desmarres, vol. ii., p. 437, in which a bloody patch is seen, having its original appearance, after ten months duration.)

Atrophy of the Choroid is a concomitant or consequence of
many of the internal inflammations, and is always a grave symptom. The ophthalmoscopic appearances differ according to the portion of the retina affected. If, for example, the first layer, the fundus, instead of the usual rose colour, presents a pale orange yellow or brown tint, and perhaps we find brownish patches and streaks, giving the appearance of a sertan leucorrhoea. See an instance, where the choroidal layer (chorio-capillary) has been affected, we have obliteration of the capillary network, and we see the larger vessels beyond with unusual distinctness. Thirdly, where the venous layer and the fundus are particularly observable in the papilla, which is unusually contracted, and presents the appearance of a pearly whiteness, with vessels few and small, etc. The Retina is known by similar appearances—the pearly white contracted state of the optic papilla, etc.; a general pallor of the fundus; want of circulation, etc. In such a state, we must expect to find many other signs of severe irritation and degeneration, patches of exudation, patches of denudation, etc. Varicosity of the Retinal Vessels is troublesome as a complication of the severe choroidal and retinal affections. It is said also (Desmarres) to exist in those who suffer from haemorrhoids or habitual cerebral congestion, without producing any appreciable impairment of vision.

Retention of Exudate may be either nearly transparent, in which case we see a bluish white tint, scarcely perceptible; or in the form of thick patches, in which we find vessels of new formation, the original vessels being lost. The new vessels are said to be recognisable as being contracted in direction with that of the normal vessels. Hyperemia of the Retina is frequently seen as a consequence of acute or chronic inflammation. It is recognised by the unusually brilliant colour of the fundus, and the want of the usual distincting clearness of the papilla, in consequence of its becoming masked by vascularity. It seems to be blended altogether, or in great part, with the rest of the fundus. Sometimes it is so red as to resemble pannus of the cornea, or it may present the appearance of fauces redness, similar to what we see in postular cornectis, etc.

Chronic Retinitis. We find a general obscurity of the fundus, arising either from exudation of some kind, or simply consisting of thickened, corrugated, or thickened choroidal tunic. This opacity is to be distinguished from that of the vitreous humour by its not being so perceptible at a distance from the optic papilla (as in the direction of the ora serrata), and having a very distinct existence often (also, but not invariably), behind the vitreous body. The opacity arises from light being reflected in less quantity from the fundus. We often see also the borders of the papilla irregular and ill defined; the rest of the fundus is sometimes overlaid with regular stripes of a dull red colour. The vessels, instead of pursuing a regular course and to from the papilla, sometimes disappear, and then after an interval reappear. This is a phenomenon often seen in edema of the retina also. The vessels, at the same time, are more developed than usual, and the minutest ramifications come into view. Under this head, Mr. Hogg relates a case at page 193—a case where there was excessive congestion of the fundus and exudate; it could not be extinguished; the fundus was raised by effusion. Also, at page 134, a case is related in which, with this obscurity of the papilla, floating bodies were discerned in the vitreous humour.

Softening of the Retina, the recognition of which in the fundus is sometimes overlaid with regular stripes of a dull red colour. The vessels, instead of pursuing a regular course and to from the papilla, sometimes disappear, and then after an interval reappear. This is a phenomenon often seen in edema of the retina also. The vessels, at the same time, are more developed than usual, and the minutest ramifications come into view. Under this head, Mr. Hogg relates a case at page 193—a case where there was excessive congestion of the fundus and exudate; it could not be extinguished; the fundus was raised by effusion. Also, at page 134, a case is related in which, with this obscurity of the papilla, floating bodies were discerned in the vitreous humour.

Softening of the Retina, the recognition of which in the fundus is sometimes overlaid with regular stripes of a dull red colour. The vessels, instead of pursuing a regular course and to from the papilla, sometimes disappear, and then after an interval reappear. This is a phenomenon often seen in edema of the retina also. The vessels, at the same time, are more developed than usual, and the minutest ramifications come into view. Under this head, Mr. Hogg relates a case at page 193—a case where there was excessive congestion of the fundus and exudate; it could not be extinguished; the fundus was raised by effusion. Also, at page 134, a case is related in which, with this obscurity of the papilla, floating bodies were discerned in the vitreous humour.

Softening of the Retina, the recognition of which in the fundus is sometimes overlaid with regular stripes of a dull red colour. The vessels, instead of pursuing a regular course and to from the papilla, sometimes disappear, and then after an interval reappear. This is a phenomenon often seen in edema of the retina also. The vessels, at the same time, are more developed than usual, and the minutest ramifications come into view. Under this head, Mr. Hogg relates a case at page 193—a case where there was excessive congestion of the fundus and exudate; it could not be extinguished; the fundus was raised by effusion. Also, at page 134, a case is related in which, with this obscurity of the papilla, floating bodies were discerned in the vitreous humour.
1. In a case—W. F., aged 34—where there was little but perception of light, both optic papillae, too well defined, the surface of the papilla presented the appearance of blue-grey dots in a watery ground; and, near its margin, on the fundus, were irregular white patches dotted with pigment; many brown pigment islands in the field.

2. In another case—E. G., aged 55—in whom there was also a perception of light, the papilla, too well defined, a portion of it blue-grey, the inner portion presented a dirty white, finely dotted appearance; vessels normal, but unusually curved over a narrow ring, white, which forms its margin.

3. In the third case—J. W., aged 34—on vision of one eye lost; with the other he can with difficulty manage to find his way about. Optic papillae, too well defined, and its surface blue-white, becoming a watery ground. On the side nearest the macula lutea is a bluish greycrescent. On the fundus there are many brownish pigment-islands. Appearances of the two eyes similar.

As the disease advances, Dr. Judae describes the grey-blue appearance more marked; the circulation becomes less; and the vessels seem more bent out the margin of the papilla. Arterial pulsation is often seen. We also see pigment-islands—that is, the hexagonal pigment-layers—instead of the uniform choroidal red. He remarks it as an extraordinary circumstance, that the retina, although in this, as in many other affections, it is liable to become disintegrated, is still a transparent fundus. Mr. Hogg, at p. 72, relates a case of traumatic amnionus where, with signs of exudation, the retina was becoming detached round the papilla; and notices cases of Gräfe, in which the retina was affected by various exudations, and had become detached. At p. 128 he also relates a case of Schönfeld, in which, with general oedema of the retina, there was a partial detachment of it. The papilla could not be distinguished. Fundus much congested. At p. 181 he also relates a case in which the most prominent symptom was hemiopia. In both regions of the macula lutea were dark spots and pigment accumulations; in the right eye was detached retina.

Crystals of Cholesterine have been found mixed up with exudations of various kinds, as a consequence of retinal disease.

Malignant Diseases of the Retina. In certain cases we find, in an early stage of the disease, a portion, if not all of the fundus, covered by a brilliant coloured prominence, convex in shape, with white vessels which have become fixed to its surface, and do not fluctuate as in the partial detachment which arises from subretinal serous effusion. Sometimes, however, both coincident in combination (Bastian). Abnormal Insertion of the Optic Papilla, without any special disease, is described; but further observation is required on this point.

Anemia of the Papilla is observed in all cases of atrophy arising from chronic retinal disorders, also as a functional and temporary change in many cases in which there is no organic alteration of the retina, but where the retinal circulation has become interrupted. It is known by the papilla being unusually distinct from the rest of the fundus, the want of blood making it look white; and, besides, we see what vessels there are unusually small and colourless. It seems sometimes to be smaller and more convex than natural, and is often somewhat irregular at its edges; at other times, it seems to be flattened out, and larger than usual. Around it the circulation sometimes has the appearance of being unusually active.

Hyperemia of the Papilla—a state coexisting with many affections, acute or chronic, of the posterior tunics—is characterised, on the other hand, by a want of distinctness of the optic papilla; it becoming as highly coloured as the rest of the fundus, or very vascular, that, even in cases where the entire fundus is hyperemic, it cannot be distinguished, particularly as its margins, from the rest. The chief guide we have in this case is the course of the enlarged vessels. At the wrist there may find, particularly, the pulsation of the vessels which are enlarged, isochronous with the pulse at the wrist.

Aneurism of the Papilla has been spoken of by some writers.

Spontaneous Pulsation of the Vessels of the Papilla is a sign of severe disease. It is particularly noticeable as a sign in glaucoma, and is not always easily detected. We must observe carefully, to find the movement in the arteries; and this can generally be ascertained to be isochronous with the pulse.

Softening of the Papilla is a bad sign, and generally indicates approaching atrophy.

Apoplexy of the Papilla, said to be confined to that part in some instances in which the disorder is not one of the most severe.

Atrophy of the Papilla is a sign of serious disease. It presents an unusually brilliant white appearance, the colour of mother of pearl, and is generally small and arched in the middle; the vessels sometimes small, at others rather dilated, and possibly varicose, seeming to disappear at the edges, and then reappear at another place. In cases in which the diminution of size is combined with unnatural prominence, and seems to arise from compression of the optic nerve at its entrance into the eye, the name of mushroom atrophy has been given. (See Desmarres, vol. iii, p. 15, fig. 66.) In one or two cases it is one of the complications likely to result in acute glaucoma.

Detachment of the Retina. It has been above stated that, among other causes for this condition, may be enumerated such definitions; and that it often presents the appearance of a funnel-shaped body, extending from the vicinity of the ora serrata to the optic papilla or other portion of the fundus. Mr. Hogg, at p. 72, relates a case of traumatic amnionus, where, with signs of exudation, the retina was becoming detached round the papilla; and notices cases of Gräfe, in which the retina was affected by various exudations, and had become detached. At p. 128 he also relates a case of Schönfeld, in which, with general oedema of the retina, there was a partial detachment of it. The papilla could not be distinguished. Fundus much congested. At p. 181 he also relates a case in which the most prominent symptom was hemiopia. In both regions of the macula lutea were dark spots and pigment accumulations; in the right eye was detached retina.


This memoir was sent by Dr. Ayre to the French Academy of Sciences, in competition for the prize offered by the late M. Bréant for “A treatment of unquestionable efficacy, which shall cure Asiatic Cholera in the great majority of cases as certainly as cinchona cures intermittent fever.” Dr. Ayre strongly advocates the claims of calomel, which he was led to employ in this disease. The advantage given his own results, with those of other practitioners: he seems, however, not to have been successful in convincing the members of the section of Medicine and Surgery in the Academy of Sciences, that his treatment stands in the high rank which he claims for it.