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SOME APPARENT DIFFICULTIES OF GENERAL PRACTITIONERS IN OPHTHALMIC WORK.

By MALCOLM L. HEPBURN,

F.R.C.S.

Lecture delivered for the Fellowship of Medicine.

THE other day I was speaking to a general practitioner friend of mine, and when I told him I was going to read a paper on the above subject, he said to me, "Are you sure you do not mean the real difficulties of general practitioners?" I assured him, as I assure you, that I mean exactly what my title says.

Most of what I should describe as the real

and serious difficulties in ophthalmic work have been adequately dealt with in the past few years by articles appearing periodically in the medical journals and by numerous little "Aid" books and small textbooks. The practitioner learns from them how to diagnose many difficult cases in their early stages, and having done so is anxious to transfer his responsibility to the ophthalmic surgeon.

The importance of distinguishing between glaucoma and iritis, and the serious consequences of wrong treatment in each case, the difficulties of diagnosing a chronic glaucoma (which, by the way, many experienced surgeons sometimes miss), and the danger of leaving a squint untreated, &c., have been so thrust before the general practitioner that he ought to be well aware of these

pitfalls. I have even seen it suggested that a practitioner is wanting in his duty to his patient if he does not use his ophthalmoscope on most of them, and the difficulties of using this instrument are most carefully explained to him and practical demonstrations given with all due care, so that at last he feels he is competent to diagnose fundus conditions. But only too often he finds that when he is confronted with his patient, ophthalmoscopy is not so easy as it is sometimes made out to be, and he finds the help he gets out of it in his clinical work is by no means commensurate with all the time and trouble he is expending on this method of examination, and he generally gives it up in despair.

The kind of difficulties I propose to bring before you this afternoon are of a different character.

Patients often come to me, or are sent to me, for comparatively simple eye conditions which I consider a general practitioner ought to be able to advise about, treat, and carry through to a successful conclusion, and the practitioner himself also feels he is quite capable of dealing with them, but for some reason or other he finds things do not go as well as he expected. He appears to make the right diagnosis and the treatment he applies is correct according to the textbooks, but somehow or other it does not produce the desired result; and again he may make the wrong diagnosis in what appears to be a simple case, and therefore the treatment becomes unsuccessful, and after a time he thinks it wise to obtain an expert opinion, or the patient goes off on his own account to an ophthalmic surgeon.

Moreover there are many cases, e.g., cataract, about which a general practitioner is quite able to give the necessary advice, but which I find is often put in the wrong way, thus creating a false impression in the minds of the patients. Since one seldom hears anything about such difficulties, I am forced to describe them as apparent; and I therefore intend to give you the benefit of my

experience in cases of this kind that have come under my notice.

I am afraid my remarks must necessarily be disjointed and incomplete as I cannot remember every form which such difficulties may take, but I can give examples of a few which I hope may be helpful.

Now one of the commonest diseases of the eye that a practitioner is consulted about is a "red eye," and it is much too often taken for granted that this must be a case of conjunctivitis when it may be nothing of the kind.

It cannot be too often insisted that the signs of conjunctivitis are: (1) Hyperæmia of the conjunctiva, which may involve both the palpebral and ocular mucous membrane or may be localized to the lids or only parts of the globe; (2) A certain amount of mucoid discharge which in a severe case may become purulent, and this discharge, if left alone will produce (3) sticking of the lids in the morning on waking, because it is of a mucoid nature. Unless these three signs are combined, you have not got a case of conjunctivitis to deal with.

The only symptom of conjunctivitis is a sort of discomfort but no actual pain; and if there is pain, we have probably some complication present.

Acute conjunctivitis is due to micro-organisms of various kinds which produce a difference in the degree of severity of these three signs, and the ordinary treatment is to wash out the eyes as frequently as possible (often every hour in a severe case) with some antiseptic fluid (e.g., 1 in 10,000 perchloride of mercury, 2 per cent. quinine, and other antiseptics), and to smear some simple ointment (vaseline or boracic) along the edge of the lids at bedtime to prevent the discharge from accumulating during the night and gluing the lids together; while during the day the eyes must be left open and exposed to the air. Dark glasses may be necessary as some patients are sensitive to bright light and cold wind under these circumstances.

Chronic conjunctivitis exhibits the same

three signs, but in a modified form, and roughly speaking some sort of lotion containing zinc (beginning with 1 gr. to the oz.) is indicated.

In severe cases and those that clear up very slowly, it is advisable to paint the lids with 2 per cent. silver nitrate, or protargol drops (5 to 10 per cent.) may be used; and where there is much discharge this form of treatment has to be applied every day, but in the less severe cases and those gradually recovering, once or twice a week is quite sufficient, but this should not be the routine treatment for all cases of conjunctivitis. The mild cases do not require drastic treatment of this sort, which very often only increases the signs and symptoms.

But it is important to continue the use of the lotion for several weeks after the conjunctivitis appears to have completely recovered, in case there are any organisms hidden away in the folds of the mucous membrane which may at any moment start multiplying again if they are left alone. I think it best for patients suffering from conjunctivitis not to be allowed to read, and to avoid all external sources of irritation, such as smoke, dust, cold air, bright light, &c.

Now, not all cases of hyperæmia of the conjunctiva alone must be diagnosed as conjunctivitis, although it is true this is one of the signs. Yet practitioners often seem to think it is, and treat them on the lines I have laid down above, often resorting to the use of the stronger drugs at once.

This hyperæmia may be due to some irritation, e.g., chemicals splashed up into the eye, dust, ingrowing lashes, smoke, &c., especially in sensitive people; and such cases must not be treated with preparations which are intended to destroy organisms that are not there. They only add to the irritation, and much disappointment is caused if what is considered by the patient as "a cold in the eye," and indeed is often a very simple case, is not successfully treated, and thus practitioners often lose the confidence of their patient over a rather trivial affair. A simple

boracic or alkaline lotion with some hazeline is all that is required in such cases, and removal of the definite cause (e.g., lash) when found.

Again, although mucoid or purulent discharge is one of the signs of conjunctivitis, not all forms of secretion which hang about the lids is due to inflammation of the conjunctiva. For example, no doubt many of you have noticed a white, creamy-looking discharge sticking on the lids at the inner and outer canthus and perhaps along the inner edge of the lids, mostly in the morning. This is not conjunctival discharge, but excess of meibomian secretion, which often gives rise to a good deal of irritation but never causes sticking of the lids in the morning. If this condition is treated as a conjunctivitis with antiseptic lotions and silver preparations, it will never get well, and may be made considerably worse. What is needed is to massage the edge of the lid, pressing it between one's two fingers, and paint the inner margin of the lids occasionally with some mild astringent, as resorcin (2 per cent).

Another example of discharge, which is not of conjunctival origin, is that which collects near the inner canthus, because it originates from an obstructed lacrymal duct and regurgitates from the lacrymal sac into the eye. It may be mucoid or muco-purulent in nature, and is found in infants with congenital obstruction, or in adults as a result of rhinitis. There is never any hyperæmia of the conjunctiva, either palpebral or ocular, and no sticking of the lids at night.

Moreover, it is to be observed that the condition is one-sided as a rule, which is in itself a valuable aid to the diagnosis. Always beware of a one-eyed condition which looks something like a conjunctivitis; it is almost certain to be something else; conjunctivitis sooner or later attacks both eyes, unless it comes under our care early enough to shut off the unaffected eye. It is quite obvious that to treat this class of case as a conjunctivitis is doomed to failure.

That a certain connection exists between conjunctivitis, or perhaps I should rather say conjunctival irritation, and refractive errors is well known to practitioners, but they must not push this point too far in giving advice to patients, as I have often had reason to think they do; there is some difference of opinion as to exact relationship between these two conditions.

Another sign, which practitioners seem to be unable to grasp the meaning of, is that of watering of the eye, and they appear to regard it in much the same light as discharge, and therefore diagnose the case as one of conjunctivitis and treat it accordingly, often with disastrous results.

The eyes may literally pour with water, but you will find that the lids never stick together at night because there is no mucus present in the discharge.

Let me remind you of a fact with which you are very familiar; viz., watering of the eye due to a foreign body fixed under the upper lid. The reason of the pricking pain and watering in this case is because the foreign body scratches over the sensitive nerve-endings in the cornea, producing reflex lacrymation. Similarly, if the nerve-endings are exposed, the same sensations and watering will be produced by the lid scratching over the cornea. Such a state of affairs occurs in any form of corneal ulcer, some of which are easy to see with the naked eye, while others are so small that staining with fluorescin and examination with a magnifying lens are necessary in order to detect them. And yet these cases are frequently missed, though they ought not to be.

A 2 per cent. solution of fluorescin and a magnifying lens are not expensive items to form part of a practitioner's equipment. Fluorescin dropped into the eye can never do any harm under any circumstances, and can safely be used for diagnostic purposes if there is the slightest suspicion of the presence of an ulcer, and if there is, the affected area is stained bright green.

There is often also much hyperæmia of

the conjunctiva in these cases which must not be mistaken for conjunctivitis. I have already said that foreign bodies under the upper lid and on the cornea produce pricking pain and watering of the eye, and patients are often only too ready to inform you where the foreign body is situated and point to a position always under the upper lid. Wherever the foreign body is situated the sensation of position will always be the same; therefore, never fail to look both under the upper lid *and* on the cornea in searching for it, using if necessary fluorescin and the magnifying lens for this purpose.

Numbers of cases have come under my notice where foreign bodies and small ulcers have been missed because of the neglect of this careful examination.

Abrasion of the cornea, the result of a scratch with a finger nail, sharp stick, or twig, causes much watering of the eye and is excessively painful. It is often difficult to see with the naked-eye but is easily made visible by instilling fluorescin. It is also curious that in this condition we often find some oedema of the skin of the upper lid on the outer side, a sign very difficult to explain, but this appearance together with intense hyperæmia of the conjunctiva leads the practitioner to mistake the case for conjunctivitis.

Another useful sign in foreign bodies and abrasions is that the pupil on the affected side is smaller than that on the unaffected side, but it is quite active; not the small fixed pupil found in iritis.

Watering of the eye worse in the wind and cold is a symptom of obstructed lacrymal duct, again often one-sided, and unaccompanied by hyperæmia or sticking of the lids. It is useless to treat this as a conjunctivitis.

Watering of the eye also occurs in deep inflammation of the eye such as iritis and cyclitis; indeed it is extremely common in the former condition, the additional signs and symptoms to confirm the diagnosis being discoloured iris, contracted inactive pupil, aching pains worse at night and hyper-

æmia most marked round the sclero-corneal margin. You can readily see how serious it would be to treat this as a conjunctivitis merely because of the watering, and yet I have often had such cases sent to me that have been treated with silver preparation and yellow oxide of mercury under these conditions.

PAIN IN THE EYE.

Practitioners appear to have a very hazy notion of the relative value of this symptom in eye conditions.

They all know that it is one of the symptoms of glaucoma, and in their eagerness not to overlook a case of this nature are inclined to regard all kinds of pain as possibly due to this condition without paying sufficient attention to the accompanying signs characteristic of acute glaucoma. In chronic glaucoma, remember, there may be no pain, or only slight occasional pain lasting a few hours. There is the pricking, smarting pain, due to superficial conditions, such as ulcer of the cornea, foreign bodies, ingrowing lashes, &c., to which I have already alluded. This sort of pain is generally relieved by keeping the lids closed.

There is the dull, throbbing pain of acute iritis which, like all inflammatory pain, is worse at night. There is nothing that relieves this kind of pain so much as the application of two leeches to the temple on the affected side.

The continuous aching pain of acute glaucoma lasts all day and night and radiates over the side of the head and is often severe enough to cause vomiting. This pain is accompanied by a fixed dilated pupil unless it occurs as a complication of iridocyclitis, hypopyon ulcer, &c., when the pupil may not be dilated, but at any rate it is fixed. There is very little that can be done for this pain, but leeches and hot bathing to the eye do some good. An operation of some kind is the only thing to relieve it. Acute glaucoma can always be verified by feeling the tension which under these circumstances

requires no special skill in order to detect its presence.

Practitioners must not confuse these various types of pain or they may be led to judge of its character by what the patient considers and describes as agonizing; and therefore their thoughts turn at once to glaucoma.

I am sure this must be another of the practitioner's apparent difficulties because I have so many patients sent to me by them accompanied by letters and messages telling me what they are afraid of.

Remember that pain, however, severe from the patient's point of view, cannot be pain due to acute glaucoma if it is accompanied by a briskly acting pupil, and yet I have had such a case sent to me where the practitioner was so certain of his diagnosis that I engaged a room at a nursing home preparatory to performing an operation. When I saw the patient the vision was $\frac{1}{2}$ in each eye and there was a briskly active pupil and the tension was normal. I sent her on her way rejoicing, but my greatest difficulty in handling the case was to adjust satisfactorily the relationship between the practitioner, the patient, and the consultant.

Again there is the sort of pain which patients describe as drawing pain at the back of the eyes, making them want to shut them and keep them tightly closed for a few moments. This is generally a sign of eye-strain and ocular muscle fatigue, and may be caused by some refractive error.

There are a few drugs about which there appears to be a misunderstanding in the minds of practitioners. One of these is cocaine.

Now it is well known that cocaine is a local anæsthetic for all superficial parts of the eye, and therefore will relieve the pain of corneal ulcer, abrasion, or even a foreign body, and when some patients complain bitterly of the pain they are suffering especially when their complaints are accompanied by appealing requests for something to relieve them we may be tempted to instil

cocaine drops. In my opinion this is quite the wrong treatment.

The relief is only temporary, and cocaine possesses the property in many people of loosening and removing the corneal epithelium. I have often seen the whole of the epithelium peel off in cataract cases where cocaine is instilled preparatory to an operation, and one never knows in any individual case whether it is going to have this effect or not. Imagine, therefore, the result on the ulcer or abrasion over which we are anxiously waiting for new epithelium to grow as quickly as possible.

Yet I know, from practitioners' prescriptions of lotions which I see, that this is one of the apparent difficulties in the treatment of such cases.

The desired relief can equally well be obtained by merely keeping the eye tied up so that the lids cannot be opened and are always in contact with the globe. The application of the mucous surface of the lid to the ulcer, provided there is no discharge likely to infect it, is sufficient to encourage the rapid growth of epithelium over the surface of the ulcer or abrasion, and the pain soon subsides.

We all know that with a foreign body under the upper lid we are fairly comfortable so long as we keep our eye shut.

The only time I use cocaine is when I wish to perform an operation on the eye; never in lotions.

Atropine is another drug about which practitioners appear to display a certain amount of—shall I say—nervousness, judging by the number of cases which come to me and which ought to be under atropine but are not.

This is not entirely the practitioner's fault but the fault of the warnings given by some teachers and in some textbooks.

One has often heard the injunction and seen it in print: Never put atropine into the eyes of patients over 40, for fear of inducing glaucoma. Now a statement of this kind without any qualification whatever

can only be taken one way and gives the practitioner the impression that this result in people of this age and over is the rule rather than the exception, and no wonder they are afraid of the drug.

While it is quite true that cases of acute glaucoma have occurred following the use of mydriatics, it is undoubtedly an exception, and only happens in those who show certain characteristics suggestive of such a contingency happening. In a hospital like Moorfields where there is a daily attendance of 400 out-patients, and where a mydriatic is instilled into the eyes of certainly half this number, this complication very seldom arises, and it is therefore a sufficiently rare occurrence to warrant us in taking the risk when the condition is, as it were, crying out for atropine.

Inflammation and ulcers of the cornea, as well as iritis and iridocyclitis, must be treated with atropine at the earliest possible moment, and continued several weeks after all signs of inflammation have ceased, and this, no matter what the age of the patient may be.

The idea that the pupil may never return to its normal size again after the prolonged use of atropine, which I have more than once discovered is an apparent difficulty in the minds of some practitioners, has no foundation in fact, and need not be considered any further.

Another drug about which I wish to speak to you is one well known to all practitioners and apparently used by them very freely under all possible circumstances, but I am bound to say with very little regard to its action on the eye; and that is yellow oxide of mercury. Indeed it seems to me that the principle guiding many practitioners in the treatment of diseases of the eye is, "If in doubt use yellow oxide of mercury ointment."

The idea underlying this method of treatment is that this drug is antiseptic, and this no doubt is, to a certain extent, true, but is this the best form in which to use an antiseptic to the eye?

It must be remembered in the first place that this ointment, unless made up with special care, acts as an irritant, and it is doubtful whether it is not irritant to a certain extent however carefully prepared. Now this property is eminently desirable in certain conditions of the eye; as, for example, some cases of blepharitis but not all, and also to promote absorption of corneal infiltration or scar tissue, but this is by no means the action wished for in many cases for which it is very commonly used. Besides which some individuals are much more tolerant of stimulating and astringent applications than others, and therefore such people do not complain of the yellow oxide treatment, but I should strongly advise you to assume that your patients will be extremely susceptible to any form of application to the eye, and many will often complain bitterly of what we consider very harmless sort of lotions and ointments, and anything in the nature of an irritant makes them much worse. This I consider is the general rule.

Therefore always begin with the milder type of drugs in conjunctival and lid conditions rather than the stronger ones, while the latter are held in reserve. Yellow oxide may be used for blepharitis, as in this condition the organisms are near the surface, and in some corneal infiltrations which are slow in clearing up, but I should say for no other condition.

And yet I have known it prescribed as a routine treatment in corneal abrasions and ulcers, and only the other day a case of iridocyclitis came to see me where this treatment had been adopted. It is true atropine was also one of the components of the ointment, but it was apparently thought advisable to add some yellow oxide as well.

The two first conditions urgently call for the use of atropine alone, while the omission of its use in iridocyclitis may be disastrous, pain and the possibility of complications being intensified by this mistake.

The iridocyclitis is a blood infection, and

what the effect of yellow oxide can have in such a case, I fail to see. The excuse for its use in abrasions and corneal ulcers is that they may become infected and the ointment is used as a precaution. Even allowing for this point of view, infection is, as a rule, extremely uncommon, and can only come from organisms in the conjunctival sac, and these can be washed out quite effectually by an antiseptic lotion of a less irritating nature.

The number of cases which have come under my care where I have stopped the yellow oxide treatment with beneficial results have been—I had almost said—legion. Another subject about which many practitioners appear to be in doubt is when and when not to apply heat to an eye. In most other parts of the body heat is applied in the form of fomentations fixed on the affected or inflamed part, especially where there is any suspicion of the development of pus which is eventually evacuated by operation, but this method of applying heat is quite unsuitable for eye conditions; the fomentations so quickly get cold and then are entirely useless.

One of the differences between the conditions found in eye inflammations and those in some other parts of the body is that we have to take into consideration the fact that the conjunctival mucous membrane may have organisms hidden away in its folds which are only too ready to grow under favourable conditions and infect the cornea, and what more favourable circumstance could be found for their growth than to shut them up in warm surroundings?

You can readily see that fomentations may in this way do a lot of harm.

Take for example an hypopyon ulcer which is an extremely severe form of ulcer, and is on the whole rare, but if it is common anywhere it is more likely to be so in rural districts, and may often come under the care of the country practitioner.

In this type of ulcer there is pus in the anterior chamber, and some practitioners

appear to think that the object of the treatment here is to encourage the evacuation of this purulent material, and for this purpose they apply hot fomentations. Apart from the fact that the cornea is the most resistant part of the outer envelope of the eye, and unless totally inflamed and necrotic as in some cases of gonococcal keratitis practically never breaks down under the influence of heat, the pus in this particular case is sterile and is due to intense iritis from absorption of toxins from the surface where only a small part of the cornea in the early stages is necrotic due to the presence of the pneumococcus, and even when perforation through this part *does* occur the pus is seldom evacuated.

Fomentation applied in this case only encourages the growth of the pneumococcus, soddens the epithelium and prevents healing.

No form of corneal ulcer should be subjected to continuous heat.

But the application of intermittent heat to corneal inflammations and ulcers, if properly applied, and coupled with the free use of non-irritating lotions and atropine, will often do a great deal of good, though by no means always necessary.

The proper way to apply this form of heat is to close the lids and then hold up in contact with them a clean sponge or cotton wool wrung out of very hot water, beginning with it as hot as can be borne, and as soon as it gets cool to redip the wool and apply again. At last the water can be tolerated on the lid hotter than the fingers will bear, and then a pledget of cotton wool must be wrapped round the end of a non-conductor (such as a handle of a wooden spoon) and then held up to the eye in the same way as before.

No other form of hot bathing is of any use at all; and this method must be carried on intermittently for a period of ten minutes three or four times a day, or even more often if it is considered necessary. It is a very useful treatment in all forms of painful affections of the eye, especially iritis, and

iritidocyclitis, and in glaucoma preparatory to operation.

In iritis and iridocyclitis it may be necessary, and indeed is a very good line of treatment, to apply heat continuously, and this can be carried out by means of an electrically heated pad or a Japanese muff-warmer covered over by a fairly thick layer of cotton wool.

Practitioners should certainly be able to give sound advice to the patients about cataract, and yet to judge from cases which have been sent to me they very often seem to assume that every type of cataract is suitable for operation, and, moreover, go so far as to encourage their patients to expect perfect vision afterwards.

There are senile cataracts, congenital cataracts, traumatic cataracts, and secondary cataracts which include those forms occurring as a complication of detached retina, iridocyclitis, glaucoma, &c., and some of these are most unsuitable for a successful operation.

First of all in the senile type, which are usually the most likely to benefit from an operation, a monocular cataract, however far advanced, should never be operated upon as long as the other eye still has useful vision, viz. : about $\frac{6}{18}$.

The eye after operation, however successful the result may be, will require a very strong convex lens which is so out of proportion compared to the other eye without a glass that this amount of anisometropia is too great for the two eyes to be worked together in anything like comfort, and the patient prefers to neglect the operated on eye and get along with the imperfect vision of $\frac{6}{18}$ together with the normal accommodation. The operation, therefore, becomes a useless one, and yet they have undergone the risk.

Cataract cases, where the fundus is not healthy, as shown by the bad response to projection of light in the different parts of the visual field, should not be operated on. Cataract following iridocyclitis, even

if there is good projection of light, should be left as long as possible, provided the patient has some sort of useful vision in the other eye, as complications at the time of the operation are likely to arise and the ultimate effect on vision is problematic.

Therefore before hazarding an opinion, all these facts should be taken into consideration, the most important of them being the projection of light, a perfectly easy method of examination for the practitioner to carry out. In these days cataracts need not necessarily be left until they are what is called ripe before they are operated on, but an operation can be advised on one eye as soon as the vision has fallen in both eyes to a visual limit which is inconsistent with the carrying out comfortably of ordinary daily life.

The universal advice given to cataract patients that operative treatment can be undertaken in every case and their sight restored often leads again to uncomfortable relationship between the practitioner, consultant and patient which need never happen.

With regard to the various drugs advised in these days to be instilled for the arrest of cataract, mostly by quacks, I sometimes gather that practitioners are in difficulties about what to say.

No doubt some day we shall find that the chemical changes in the various fluids of the body, and indirectly in the eye by osmosis, have much influence in the development of cataract, but at present these scientific matters are still in their infancy, and until they are definitely settled it is premature to dogmatize on the effects of fluids applied to the eye, especially from the exterior; and therefore their use should not be encouraged.

I must say a few words about refractive errors, for I find there are apparently some very strange views amongst practitioners about defects of vision arising from this cause.

I am one of those who believe that general

practitioners, especially those with a very busy practice, should have little to do with errors of refraction so far as ordering of glasses is concerned. All ophthalmic surgeons could give numerous instances of dissatisfaction on the part of patients who have had their refractions most carefully and patiently worked out by all the various methods at our disposal and we are fully cognisant of all the pitfalls, but the general practitioner will be wise to avoid all this additional worry.

At the same time they should know sufficiently about refractive errors to be able to give useful advice, and to be careful not to make ambiguous statements which often give patients a considerable amount of anxiety or false hope.

Myopia should always be taken seriously, as a certain proportion of cases, especially in young patients, tend to be progressive besides the inconvenience of not being able to see like normal people in the distance; but it is not necessary to warn all myopic patients, as I have often heard, that they must never read or must lead practically an invalid life for the rest of their days for fear that detachment of the retina might occur, and thus lose their sight; and that myopic girls must not be allowed to marry in case this complication should arise during their confinement. It is true that myopia is one the predisposing causes of detachment of the retina, but a large majority of patients with myopia escape this complication.

Also never encourage myopic patients with the assurance that they will get better when they get older. If the amount of myopia is only small they may be able to read without glasses when over 45, according to the degree of myopia, but the distant vision without glasses will always remain defective.

On the other hand hypermetropia leads to a good deal of eyestrain and headache, but no serious visual complication is associated with this refractive error, and patients can be reassured so far as visual acuity is con-

cerned, but please do not talk about hypermetropia as old sight.

A few weeks ago a lady brought her son to me, aged about 8, because her medical man, finding that the boy was wearing + 1 D spheres for hypermetropia, told the mother that he had the sight of a man of 45, these being the glasses that a man of that age would ordinarily be wearing for reading. The mother was very distressed because, as you may know, the general public consider that deterioration of vision is necessarily an accompaniment of advancing years, which leads to the remark one so constantly hears from old people, if they do not come up to full standard, "Well—what can you expect of a person at my age?" This idea, by the way, keeps many people from consulting anyone about their sight when they ought to be having advice and treatment.

This lady, therefore, imagined that her son was thirty-two years nearer this inevitable deterioration of vision than he otherwise would be.

Perhaps I may be allowed to remind you that hypermetropia means a shorter eyeball than normal, and that this refractive error is corrected by convex glasses, and such glasses have to be worn by patients with hypermetropia if the amount is more than they can comfortably deal with by the continued exercise of the accommodation, or if through failure of accommodation the standard of vision falls below the normal.

Presbyopia, or failure of accommodation at 45 and over in normal sighted people, is also corrected by convex glasses, but the physiological cause for wearing this type in such cases is different to the anatomical cause in the hypermetropes. But the practitioner, in interpreting the cause for wearing glasses in the above case, had made the apparent error of regarding the wearing of the + 1 D lens in the same light in both cases, in spite of the fact that in the boy the glass was prescribed for distant vision, while in the man of 45 it would be ordered only for reading.

I may have omitted many of the apparent difficulties of general practitioners, which they themselves may regard as real difficulties; or on the other hand may not, being possibly under the impression that they are giving sound advice and treatment; but if I can be of any help by answering any questions you may wish to put to me, I will do my best in the short time left at our disposal.

ANGINA PECTORIS.

A POST-GRADUATE LECTURE DELIVERED AT QUEEN MARY'S
HOSPITAL FOR THE EAST END.

By K. PLAYFAIR,

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LITTLE progress has been made in the study of this symptom during the past 150 years, since Heberden in 1768 published his original description, in which he found that the attack was relieved by alcohol and stimulants; that opium at night warded off attacks, and that at post-mortem there were no very gross changes, except early atheroma of the aorta.

One might venture to think that the cause of such little progress is the comparative infrequency of angina pectoris in hospital patients in this country, in comparison with the numerous cases of all types of angina pectoris met with in private practice. Most of the recent investigations have been done in America, where possibly the greater incidence among hospital patients would be due to the fact that these patients are derived from wider classes of society than in this country.

Though, as I have said, little progress has been made in our knowledge of the causal factors, we can certainly claim that recent work has given us a clearer classification of the types of angina pectoris, which materially helps us in both treatment and prognosis.

I would classify angina as follows:—