Observations

ON

SOME POINTS IN CONNEXION WITH DETACHMENT OF THE RETINA.*

BY

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THE short time at my disposal I propose to devote to the important subject of the selection of those cases of so-called simple detachment of retina which are suitable for treatment, and to try to indicate which cases of this desperate condition give some reasonable chance of success.

I suppose we shall all agree that when both eyes are affected, or when the only seeing eye has developed a detachment, we may be driven to treatment which we know has little reasonable chance of success. We do this partly on the bare chance that our past experience may be upset, and partly to mark time so that our patient may have the satisfaction of feeling that something is being tried, instead of suffering the double depression caused by the loss of sight and by a policy of hopeless inactivity.

But it is the question of treatment of a case of detachment of one eye only that I wish to discuss, for it is here that our colleagues appear to hold such divergent views. In spite of the articles which appear in the general press from time to time of the successful treatment which has been devised in this or that country, or even in the medical papers, which publish reports of 100 per cent. of successes obtained in a modest series of a few units, we are all painfully aware that our chance of restoring sight with our present knowledge is very slight. When we consider the mental strain which our methods entail, together with the considerable expense incurred in nursing home and professional fees, only those cases where a reasonable chance of success exists should be subjected to treatment. Unsuccessful treatment is regrettable both from the disappointment and loss of money involved, and also from the discredit to the acumen of the profession as a whole, as well as to the individual member who has advised it.

Some say the condition is hopeless whatever the cause, and advise no treatment; some never advise anything beyond rest, and the rest advised may be lying down for twenty minutes twice a day (as I know was advised in a well known German clinic), or it may be complete rest in bed with the head never raised from the pillow. Such treatment may be combined with constitutional measures and counter-irritation but no operation. Others, again, advise operative intervention at once. The majority, I imagine, advise rest, constitutional treatment, and counter-irritation first, and if this be unsuccessful resort to operation.

I have reason to think that quite a large number of cases of detachment are treated on a purely routine plan, without sufficient endeavour being made to find the cause; it is against such a course I chiefly wish to direct my remarks.

Though, in many cases, we know little or nothing of the actual mechanism of the detachment, in others we understand or can make a reasonable guess at it. Now it is surely on the particular mechanism of the detachment in any individual case that the reasonableness of our intervention mainly depends. I think it is correct to state that the retina is either "pushed in" from without or "dragged in" from within or "floated in" when there is a hole.

When the retina is dragged in by cicatricial bands in the retina itself, as in retinitis striata, it seems to me that treatment can be of no avail, and it should not be advised.

When the retina is being dragged in by visible bands in the vitreous we must distinguish two sets of cases: (1) those in which traction is being exerted by one or more definite bands; (2) those in which the whole vitreous is diffusely fibrous, and by its shrinkage is dragging the retina in. In the former group successful results have been

obtained by the division of the band, and such a procedure is certainly well worth trying. In the latter group it would seem that no treatment ever could be successful or should be attempted.

When the retina is floated in by fluid vitreous passing through a hole in the retina to the inter-retinal space, there is considerable variation in professional views as to the treatment to be adopted.

Holes in the retina are, of course, often seen, but they can be found much more frequently than many believe who are not in the habit of searching for them, and they probably occur a good deal more often than they are found even by those who do look for them. That they are present in every case of detachment, as some assert, is a view which I think is untenable on many grounds, but chiefly on the study of the variation in the nature of the fluid or semi-solid exudate in the inter-retinal space.

There are many varieties of holes, and they may be caused in several different ways. The macular holes due to trauma or degenerative changes are seldom associated with detachment, or, if this does occur, it is slight and as a rule non-progressive. The peripheral holes—large rents or horseshoe-shaped slits—are generally associated with extensive detachment, either globular, billowy, or shelling. Holes in the retina are of considerable importance in their bearing both on diagnosis and also on treatment. As regards diagnosis, it may be parenthetically noted that the presence of a hole excludes, I believe, the presence of a growth, for, so far as I have been able to learn or observe, a growth and a hole never have been found to exist together.

As regards treatment, the committee appointed by the Ophthalmological Society of the United Kingdom to report on the results of treatment of detachment of the retina during the war recorded no case of cure by surgical treatment of detachment associated with a hole, and only very rare instances by rest. Such results are borne out by my own experience and that of my colleagues, so far as I have been able to learn.

It would seem, then, that treatment such as is at present devised, in cases of detachment with holes is practically valueless, and should not be urged except in only eyes as a last clutch at a straw of hope. If this view be correct it emphasizes the importance of a careful search for holes in every case of simple detachment, so that our patient may not be subjected to a useless form of treatment.

Next we come to the exudative cases where the retina is pushed in by albuminous fluid poured out into the inter-retinal space. It is in this group, where the detachment is associated with retinitis and choroiditis, that the greatest hope of success lies. Here, by treatment, we may hope to allay any inflammatory process which is taking place, to help in the absorption of exudate, or by operative measures drain the inter-retinal space.

In theory, with these clearly cut groups our course would appear fairly simple, but in practice, alas! the majority of cases cannot be thus pigeon-holed; we are unable to state definitely whether the retina is pushed in, pulled in, or floated in; we find no definite signs of cyclitis; we discover no vitreous bands or retinitis striata; we see no sign of inflammation either of the retina or choroid; after careful searching we detect no retinal rent. We may thus have no clue as to the mechanism which has produced the detachment. This group includes the bulk of the traumatic and myopic cases. What are we to do with them? It seems only rational, till our knowledge improves, to give these cases the benefit of the doubt and to treat them.

In whatever group the case falls, should we decide to give treatment, let me urge the advisability of treating as thoroughly as is possible once and for all. If our patient is to give his time, and incur the tedium and expense of a course of this trying treatment, let everything known to be useful be tried fully in the six or eight weeks which he is going to devote to the course, both to give him the satisfaction of knowing that every effort is being made and, what is just as important, to protect him from the poisoned darts of some who, at a later date, because some one measure—such as inunction of mercury or sub-conjunctival injection—has not been tried, may suggest that valuable time has been wasted, and that the treatment was valueless.

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Personally I am in favour of attacking the condition from every possible point of view. Absolute rest in bed, constitutional treatment to combat any general condition, absorptive treatment, and counter-irritation to endeavour to remove the exudate in the inter-retinal space—for example, hot-air baths, mercury inunctions, potassium iodide, blisters to the temple, and subconjunctival injections. If after a fortnight there is no improvement it is advisable to proceed to scleral punctures to drain the inter-retinal space, with or without making an adhesive spot to which the retina may become glued.

For purposes of discussion, I would summarize my remarks.

In retinitis striata and diffuse fibrous degeneration of the vitreous all treatment is useless.

In detachment associated with a hole treatment offers little chance of success.

Definite fibrous bands in the vitreous may be divided.

Detachment associated with retinitis or choroiditis should be actively treated.

Simple detachment in which the mechanism of the detachment is not determinable should be given the benefit of the doubt and treated.

Lastly, treatment, if attempted at all, should be thorough.

The plea of this short communication is for greater thoroughness in our examination of cases of detachment, which should include the careful exploration of the vitreous with the slit-lamp by an expert. By such an examination we may hope to gain new information (1) by which to group our cases more rationally, and (2) by which future treatment may be more successful than that of the past.

By these means the more hopeful cases will have the best chance of restoration of sight, and the hopeless cases may be protected from a course of mental strain and expense the disappointing results of which were a foregone conclusion.

DISCUSSION.

Dr. W. CLARK SOUTER (Aberdeen) gave short notes of six cases of spontaneous reattachment of detached retina—two traumatic, two idiopathic, one myopic, and one pregnancy—recently seen, in which a gross detachment of retina had apparently disappeared, leaving choroido-retinal atrophy-like changes in three, retinitis striata in two cases, and an apparently normal fundus in one case. He discussed the pathological findings in published cases where reattached retinae had come to the microscope, special mention being made of the cases of Rönne and Klainguti. In one of his retinitis striata cases, an idiopathic one, watched over seventeen years, the long white band at the edge of the reattached area was crossed by vessels which were obviously not retinal, and not likely to be choroidal, but rather like new vessels, making a strong resemblance to, and in the author's opinion a possible explanation of, those cases described by Sir William Lister in the *Ophthalmic Review* for 1903, under the heading "Angioid streaks of the retina."

Mr. INGLIS POLLOCK (Glasgow) said he had operated on two patients with detached retina, both of whom recovered. In the first case a relapse occurred and, although the patient had to wait six months for readmission to the infirmary, a second operation was successful in restoring the retina to its normal situation. This was seven years ago, since when there had been no recurrence. In the second case one operation sufficed, and the patient had had no recurrence since the operation, six months ago. Both cases showed that there was no improvement until the inter-retinal fluid was withdrawn; in fact, both patients became worse while they lay up at home with both eyes bandaged. The first showed that success might follow operation in spite of the recurrence of the detachment. Mr. Pollock further said that he had seen a small detachment cured by operation, followed by recurrence of the detachment, and subsequent complete loss of sight in the eye by the extension of the detachment all over the fundus.

Mr. J. W. TUDOR THOMAS (Cardiff) described a case of double detachment of the retina in which reattachment of the retina followed in one eye, leaving pigmentary changes

resembling slightly the pigmentation of retinitis pigmentosa. A detachment developed first in the left eye, which became blind, and the lens gradually grew opaque. A large fluid detachment of the retina developed in the right eye about six months after the left eye commenced to fail. Posterior sclerotomy was performed, using the electric cautery. Some opacity developed about the posterior pole of the lens, but ten months later no detachment of the retina could be found, and the retina showed numerous spots of pigmentation. The opacity at the posterior pole had not advanced further up to the time of the last examination. During the last year or so he had observed three cases of detachment of the retina in pregnancy. These cases had several points in common. They were all double detachments, and all three patients had albuminuric retinitis of pregnancy. The detachments all cleared up, and useful vision was restored in each. The vision in one case became 6/12 for each eye; slight macular changes were present.

Dr. J. ROWAN (Glasgow) mentioned several cases of retinal detachment, in one of which the condition was obviously due to a tumour; the patient was myopic in the eye affected. Later the myopia was gradually reduced till the patient became hypermetropic. Both conditions were confirmed by retinoscopy. Enucleation was refused till the eye became glaucomatous; it was then removed and the diagnosis was confirmed. He instanced another case where, with rest in bed and subconjunctival injections, there was a complete cure. The late Mr. Edward Nettleship had agreed that the detachment was completely back in its place; this lasted for a few months, but after going a short railway journey the condition returned. In spite of different methods of treatment the outlook in these cases was very black.

Dr. KERRY (Montreal) gave details of a case of traumatic detachment of two weeks' duration which recovered after a course of iodine injections; in this case there was also almost complete recovery of the lost field. He advocated these iodine injections to promote absorption, and cited another case in which recovery had followed their use. Dr. Kerry thought that the subject of retinal detachment would be much better understood when more was known of the cellular function of absorption.

THE VALUE OF ANTISEPTICS IN MODERN OPHTHALMIC SURGERY.*

BY

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I HAVE been tempted to bring this subject of antiseptics in ophthalmic surgery before the meeting because it seems to me that there is still a considerable amount of difference of opinion on what is or should be a simple matter in these enlightened days.

Some time ago I read in one of our chief ophthalmic journals a long account of an operation for the extraction of cataract, the description of the operation being preceded by meticulous details of preliminary douchings and treatment applied to the eye in order to obtain an aseptic condition, which would eliminate risks of operative and post-operative sepsis.

Similarly, a very recent article in the *Acta Ophthalmologica* (vol. iv, fasc. i) dealing with the same subject of disinfection of the conjunctival sac, starts thus: "It has hitherto proved impossible to make the conjunctiva reliably sterile. It is therefore always with a certain feeling of insecurity that the ophthalmic surgeon proceeds to his operations."

Many surgeons, in fact, seem still to be of opinion that the field of intra-ocular operations requires a somewhat similar course of preparation as is essential when a skin surface is involved. They are impressed with the possibility

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