REPORT OF THE OPHTHALMIC WORK DONE IN
THE MESOPOTAMIAN EXPEDITIONARY FORCE
DURING 1917 AND 1918

BY

G. McPherson, Lieut.-Col., I.M.S.,
Consulting Ophthalmic Surgeon, M.E.F.

Practically all the eye work of this force during the years 1917 and 1918 was done at the three ophthalmic centres of Busra, Amara, and Baghdad. It is found from experience that in a comparatively small branch of medicine such as ophthalmology it is much more satisfactory for cases in any given area to be examined and treated at a centre by an ophthalmic specialist than for each hospital to treat its own cases. The reasons for this are as follows:

1. The average medical officer's knowledge of eye disease is very limited. Cases were constantly being sent in as cataract when the lenses were perfectly clear, the grayish colour of the lens of an elderly patient being mistaken for opacity. Most cases of inflammation were returned as conjunctivitis and had been treated with boric lotion.

2. It obviates the same case being examined several times over. A man with an error of refraction might report sick at one hospital after another, but where there is a special centre this is impossible.

3. It prevents unnecessary evacuation. When I was at Busra I was constantly having cases sent down which need not have been; for instance, a coolie with an old leucoma or a quiescent pterygium. In the earlier years of this campaign a large number of men suffering from artificially produced ophthalmia succeeded in this way in being invalided to India. This was before ophthalmic centres were established.

4. It is more economical as regards the provision of drugs and equipment.
OPHTHALMIC WORK DONE IN MESOPOTAMIA

Number of cases examined during the years 1917 and 1918.

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th></th>
<th>Indians</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of</td>
<td>8,641</td>
<td></td>
<td>11,020</td>
<td></td>
<td>19,661</td>
</tr>
</tbody>
</table>

**Spectacles supplied**

<table>
<thead>
<tr>
<th></th>
<th>British Troops</th>
<th></th>
<th>Indians</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of</td>
<td>3,430</td>
<td></td>
<td>1,021</td>
<td></td>
<td>4,451</td>
</tr>
</tbody>
</table>

Most of the Indians supplied with spectacles were clerks. As the Indian troops are enlisted voluntarily, the standard of vision is higher than amongst the British, and so the necessity for supplying Indian soldiers only very occasionally arose. It is a noteworthy fact that presbyopia comes on earlier in Indians than in Europeans. The average Indian with normal refraction requires spectacles for reading at the age of 40, whereas the average European does not require them till 45 or over.

**Operations.**—With the exception of emergency operations for glaucoma or injuries, etc., only such operations were done as were likely to render men who were incapacitated fit to return to duty within a comparatively short period. Cataract cases were, as a rule, invalided.

**Number of operations performed**

**Excision of Eyeball**

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th></th>
<th>Indian</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>20</td>
<td></td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

During 1918 several of the excisions were performed under local anaesthesia. After cocaineizing the eye, 2 cc. of a 2 per cent. solution of novocaine were injected along the course of each rectus muscle into the back of the orbit and after 20 minutes the eye was excised. Some of the operations were quite painless, whilst in others only slight pain was complained of. This method is particularly suitable where the inflammation is not very acute, and, of course, it has the advantage over a general anaesthetic that it does not expose the patient to the same risk and it enables an operator to undertake an excision single handed. Most of the excisions performed were for injuries, but a few for an irritable anterior staphyloma.

**Pterygium**

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th></th>
<th>Indian</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>14</td>
<td></td>
<td>61</td>
<td></td>
</tr>
</tbody>
</table>

This affection is much more common amongst Indians, probably owing to their greater exposure to dust and glare. In fact, amongst
Indian coolies it is more or less the normal condition. Operation was performed only where the pterygium was obviously progressing and was usually done by the Arlt method.

**Excision of lacrimal sac**

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th>Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>...</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>...</td>
<td>57</td>
</tr>
</tbody>
</table>

All the cases were ones of long standing dacryocystitis in which nothing short of excision would have been of any use. The operation was in all cases performed under local anaesthesia. The results were on the whole satisfactory. In some cases a troublesome epiphora remained, and, of course, for a man in military employment who is not keen on serving, a condition of this kind gives him an opportunity of reporting sick at all times.

**Entropion and trichiasis**

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th>Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>...</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>142</td>
</tr>
</tbody>
</table>

This affection occurred mostly in Indians, and in all cases was the result of long standing trachoma, which is so common among them. The operation usually done, and the one that on the whole gave the most satisfactory results, was a modified Snellen, such as is done at Bombay Ophthalmic Hospital. An incision, about 3 mm. from the edge is made along the whole length of lid. The ends of this incision are joined by a curved incision and everything is excised down to the cartilage. Then a wedged-shaped piece of the tarsus is excised, the point of the wedge towards the conjunctiva. It is of no importance whether you remove a piece of the conjunctiva. In fact it is difficult to avoid doing so. Three to four sutures are then passed through the upper lip of the wound, then through the upper portion of the tarsal plate out through the skin between the lower lip of wound and edge of lid. I have seen several such cases months later and was scarcely able to see the scar. It ensures good eversion of the lid and leads to no deformity.

**Glaucoma operations**

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th>Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>...</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

Glaucoma is naturally not very common in the Army as the bulk of the men are under 40. Most of the cases operated on were chronic cases. In all such I performed Elliot's trephining and the results, so far as I observed, were good. In the acute cases iridectomy was performed. In one of the most acute cases I performed the operation after a subconjunctival injection of 2 cc. of 2 per cent. novocaine solution along the internal and external rectus muscles. The patient apparently had no pain. I consider this method preferable to operation under a general anaesthetic, as
there is no danger from vomiting, such as you have so often after a
general anaesthetic. I think this method has a future, and I mean
to adopt it as a routine measure on my return to Bombay.

Commoner Diseases

(1) Conjunctivitis.—In a country such as this, with so much dust
and glare, this was naturally a common complaint. The number of
cases treated at the ophthalmic centres was as follows:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>British</td>
<td></td>
<td>969</td>
</tr>
<tr>
<td>Indian</td>
<td></td>
<td>1383</td>
</tr>
</tbody>
</table>

Only one case of gonorrhoeal ophthalmia occurred, so far as I am
aware, during the two years. Amongst the British the
mucopurulent and chronic variety were about equally common.
The chronic variety was often of an angular nature, and in many
cases the Morax bacillus was found.

The mucopurulent variety was never of a very acute nature and
was more common amongst Indians than the chronic variety, which
was comparatively rare amongst them. The results of the bacterial
examination in the mucopurulent variety were not very definite.
A particularly troublesome form of conjunctivitis occurred in which
the cornea was implicated. Patients complained that when exposed
specially to dust and glare, as after a long march, their eyes got red
and their vision became blurred. In these cases there was injection
of the lids and bulbar conjunctiva and fine staining of the cornea
on the application of fluorescein. One had to use the corneal loupe
as a rule to make out the staining. The condition improved when the
patient was resting in camp, but was very apt to recur on exposure.
The corneal staining persisted in some cases, even after the
disappearance of the bulbar injection. Zinc sulphate, gr. 1 to 1 oz.,
and the wearing of glare glasses seemed to give the most satisfactory
results. For the mucopurulent variety, painting of the lids with a
solution of silver nitrate, grains 10 to the ounce, was used with
satisfactory results.

The comparatively small number of cases of conjunctivitis
amongst Indians is accounted for by the fact that many cases of
conjunctivitis occurred in those with old trachoma and have been
shown under that heading.

Trachoma.—The number of cases in the two years was:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>British</td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>Indian</td>
<td></td>
<td>7,845</td>
</tr>
</tbody>
</table>

It will be seen from these figures that the disease was practically
confined to Indians. Several of the European cases gave a definite
history of having suffered from this affection before coming to
Mesopotamia.
Amongst the Indians the trachoma was of long standing, and had not therefore been contracted in this country. Men with old trachoma are more subject to attacks of conjunctivitis. In fact, many of the cases shown under this heading were cases of conjunctivitis arising in this way. Such men are also very apt to ascribe some corneal complication of this disease to injury, and claim compensation.

Captain Doyne, ophthalmic specialist, Baghdad Centre, and I inspected several schools, some of the police, and a portion of an Arab labour corps, with a view to ascertaining the prevalence of this disease amongst the natives of these parts. We divided them into three categories, as follows, namely:

1. Lids affected and pannus present.
2. Lids definitely affected.
3. Lids unaffected, or with only a few follicles present.

The results of our investigation were as follows:

Schools—
1. Lids and pannus ... ... ... 8 per cent.
2. Lids only ... ... ... 53 "
3. Suspicious or free ... ... 49 "

Police—
1. Lids and pannus ... ... ... 6 "
2. Lids only ... ... ... 41 "
3. Unaffected or suspicious ... ... 53 "

Labour corps—
1. Lids and pannus ... ... ... 11 "
2. Lids only ... ... ... 57 "
3. Unaffected or suspicious ... ... 32 "

Our examination for pannus was a naked eye one, so that it was only the very obvious pannus that was detected. In cases of trachoma one often discovers, by means of a corneal loupe, fine pannus present, when one has not suspected its presence at first sight.

Probably the figures for the Arab labour corps give one the best idea of the prevalence of the disease, as it is composed of persons of all ages and both sexes, and is drawn from the poorest class which forms the bulk of the population. No doubt many of the cases classified as suspicious had the disease. A few follicles in a European eyelid signify very little, but in the Arab they are much more significant. Our estimate, therefore, errs on the side of being perhaps too low.

Considering how prevalent this complaint is, it is very gratifying to know that so few of the troops have been affected. Chronic trachoma, so far as my experience goes, is not very infectious, and
I presume only spreads when men are living in crowded and badly ventilated barracks and amidst general insanitary surroundings.

We made no attempt at so-called radical treatment. Our treatment consisted in painting the lids with solution of silver nitrate, gr. 10 to the ounce, or in some cases touching with solid copper sulphate. Complications such as entropion we treated by operation. In a large percentage of cases after such treatment, the men were fit to return to duty after a few weeks.

The average medical officer as a rule fails to recognize this disease and returns it as conjunctivitis, or where there is pannus present, as iritis or keratitis. That is quite natural, as most medical officers from England have had no opportunities of seeing this disease. It is a golden rule in Oriental ophthalmic practice always to evert the upper lid.

Artificially produced ophthalmia.—Number of cases in two years: 251.

No case occurred amongst the British troops. All the cases occurred amongst Indians. At the Baghdad centre there were 164 cases. During the same period and at the same centre there were 401 cases of conjunctivitis. That gives one an idea of the prevalence of this complaint. The agents used for producing this affection were croton, castor, and jequirity seeds. The jequirity seed was the most popular. Any of these seeds can be easily purchased in the bazaar. The inflammation produced by jequirity is very characteristic and when once seen should never be mistaken. A small piece of the pulp of this seed is applied as a rule to the lower fornix. This within 24 hours gives rise to well marked chemosis of the fornix and lower part of the bulbar conjunctiva, with in most cases a well marked slough at the middle of fornix and lower lid. The extent and depth of the slough of course will vary with the length of time the irritant has been applied. We found in one case by applying a small piece of the pulp to the lower fornix for 20 minutes, a typical inflammation resulted within 24 hours with a moderate slough at the middle of the lower fornix. In a case that came under my notice, the slough formed a membranous covering, resembling one of the coats of an onion, which concealed the entire cornea. On picking this off with a pair of forceps, I found the cornea intact and that this membrane arose from a deep slough in the lower fornix. In only one case have I seen the cornea damaged at all by this inflammation. Occasionally a more enterprising individual applies the irritant to the upper lid as well, and then one gets marked swelling of this lid and some sloughing of its conjunctiva. In the majority of cases, however, the inflammation is limited to the lower lid and lower part of eyeball, the upper lid being perfectly normal. Where both lids are affected there is an excuse for a medical officer mistaking the case for an early stage of
gonorrhoeal ophthalmia. The deep slough in the lower fornix, the absence of discharge, and the subsequent course of the case should differentiate this condition from gonorrhoeal ophthalmia.

Castor oil seeds have a much milder effect and in some cases it is difficult to be absolutely certain. In many cases in which this irritant was used there was only redness of lower lid and chemosis of the lower fornix and lower part of the bulbar conjunctiva. In others, in which no doubt the irritant had been applied longer, there was a distinct but much more superficial slough than one gets from jequirity. Where no slough was present the finding of the seeds on the patient's person confirmed one's suspicions. Croton oil seeds were not much used. In the few cases I saw, the condition resembled greatly that produced by jequirity.

Medical officers rarely diagnosed this condition as such and returned it as injury or gonorrhoeal ophthalmia, usually being misled in the former case by the patient's statement or in the latter from a vague idea as to the appearance of gonorrhoeal ophthalmia.

They seem to forget that gonorrhoeal ophthalmia is a comparatively rare condition in adults.

A conjunctivitis, especially if unilateral and there is nothing obvious to account for it, should always arouse suspicion and should be kept under close observation.

Before the establishment of ophthalmic centres many cases of this affection were invalidated to India, medical officers failing to recognize their nature and finding that they did not improve under treatment.

I noticed in a few cases that there was a coincident venereal or so-called venereal sore on the penis. I have no doubt this was produced in the same way as the slough in the artificial ophthalmia, in order doubly to insure evacuation to the base.

**Corneal Ulcer**

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th>Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**British.**—Only six cases of hypopyon ulcer were reported. The majority of the ulcers were of the superficial variety and many of them were of a dendritic character. The latter usually followed some febrile attack such as malaria or sandfly fever. In some of these touching with absolute alcohol and in others the administration of quinine internally gave good results, but many had to be invalidated to India. I consider that a corneal ulcer is always a sign of lowered vitality and that constitutional treatment in the way of a change of air is the best remedy. A sea voyage for a few days will often heal a corneal ulcer which has resisted prolonged local treatment.

**Indian.**—Hypopyon ulcer was much more common amongst
OPHTHALMIC WORK DONE IN MESOPOTAMIA

Indians and accounted for close on 10 per cent. of the total numbers of ulcers amongst them. This is mainly due to the fact that the vitality of many of the Indians was not very high and so they fell an easy prey to this affection after some slight abrasion. It may also be that Indian followers in their capacity as mule and bullock drivers are more exposed to corneal abrasions, the animals often swishing their tails in their faces. I found that a sub-conjunctival injection of 10 minims of a solution containing 6 minims of a 1 in 2,500 solution of cyanide of mercury and 4 minims of a 4 per cent. solution of cocain had often a very beneficial effect. A large number of the ordinary ulcers amongst Indians were associated with trachoma.

Night Blindness

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th>Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>392</td>
</tr>
</tbody>
</table>

As will be observed, the majority of the cases occurred amongst Indians, a few were due to retinitis pigmentosa, but the bulk had no retinal lesion. Close on half of the cases had xerosis conjunctivae. On the other hand many cases with xerosis conjunctivae had no complaint of night blindness. There still remained many cases with no objective signs. Some of these were debilitated men, and no doubt their complaint of night blindness was genuine. Still there was a fair number of apparently healthy men who suffered from this complaint and in whom there was nothing to account for the condition. I know of no complaint in which it is so difficult to give a definite opinion in any case where there is no obvious lesion present. The fields of vision in such cases are said to be contracted, but in dealing with illiterates the taking of the fields of vision is almost impossible. One would naturally suspect cases as not genuine when an undue proportion occurred in one unit and not in other Indian units living under the same conditions. If one suspects a case is not genuine, one might ask the man's O.C. to put him on extra duty. I have known of outbreaks of night blindness disappearing rapidly under such treatment.

The treatment adopted consisted in the administration of cod liver oil and the bandaging of both eyes during the day for about a fortnight. Some cases admitted great improvement after this treatment, while a few said they were no better. In men subject to this complaint the provision of glare glasses is advisable.

Iritis

<table>
<thead>
<tr>
<th></th>
<th>British</th>
<th>Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>136</td>
</tr>
</tbody>
</table>

This number occurred in 1918. Records for 1917 were not available. The causes of this complaint were various. Some were
due to syphilis and gonorrhoea, but the majority had no venereal history. A few followed malaria, enteric, or dysentry. As regards treatment, we found that a subconjunctival injection of cyanide of mercury, similar to that used in hypopyon ulcer, had in most cases an almost magical effect, the pupil dilating freely within 24 hours, and the patient declaring that all his pain and discomfort had disappeared. The testimony of the patient was, as a rule, most striking. The following two cases illustrate the value of this form of treatment.

(1) Corpl. G., admitted on January 12, 1918, with iritis of left eye, following enteric. The pupil was contracted and there were a few posterior synechiae present with marked ciliary injection. He had been under treatment with atropin for about three weeks. After the injection the pupil dilated freely and the patient declared that that night had been his first good night for several weeks.

(2) Turkish Prisoner A—, admitted with iritis of the left eye following malaria. Posterior synechiae and a whitish exudate in the pupillary region were present. The cornea also looked hazy. The day after the injection the exudate had disappeared, the pupil dilated and the cornea became clear. The patient declared that all pain had disappeared. In a few days all traces of inflammation had gone. Capt. Doyne, ophthalmic specialist, Baghdad, and I were so much impressed by the success of this treatment that we have now adopted it as a routine measure for acute iritis. In no other affection of the eye have we had such striking results as in iritis and iridocyclitis of the acute variety. The patients did not suffer much pain from the injection. In two cases a little slough formed in the conjunctiva of the lower fornix, but this cleared away gradually.

**Gunshot Wounds.**—In 1917 there were about 20 British and 40 Indian cases. In 1918 there were only two or three. This number does not represent all the eye injuries in the Force from gunshot wounds, as cases where the eye was hopelessly damaged were disposed of in the general surgical wards in the forward area.

Any high velocity bullet touching the eyeball usually destroys it completely. Where such bullets passed through or even near the orbit without touching the eyeball, very extensive damage to the inner coats usually occurred. The most common lesion thus produced was an extensive rupture of the choroid and retina. The most marked case of this injury that I have seen was one in which a piece of bullet had passed through one orbit and had lodged in the other orbit. At the posterior pole of each eye there was a large white glistening patch of about four papillae diameters. There were several small haemorrhages on and at the edges of these patches. The discs had disappeared. The retinal vessels came to an abrupt termination at the margins of the patches. There were
a few spots of pigment scattered over the patches and a disturbance
of pigment at the margins extending into the unruptured retina.
The patches presented the appearance of a coloboma of the choroid.

In the case of shell wounds the injury was either so severe as to
destroy the eye completely or small fragments of the shell lodged
in the eye. In none of the latter were we able to extract the
fragments. As regards the treatment of such cases, I waited for a
week or ten days. If the eye remained or became very irritable I
excised it. If it quieted down in that period I left it alone. No
case of sympathetic ophthalmia was reported in the Force. Only
a few cases of gunshot wounds of the occipital lobes were recorded.
And the symptoms were the usual ones associated with such lesions
and about which so much has been recorded from the front in France.

Penetrating Injuries of the Globe.—A very large proportion of such
cases were due to the bursting of soda water bottles. I found in
pre-war days in Bombay that this accident accounted for the majority
of penetrating wounds in that city.

Malingering as regards Vision.—This was not very common.
Such cases are, as a rule, very easily detected, as the patient
usually overacts the part. I found Snellen's coloured types most
useful in dealing with such cases.

Cases of special interest.—(1) Inflammation as the result of
emetin getting into the eye accidentally.

Sister F. came to me on January 1, 1918, complaining of great
pain in the right eye, which had come on suddenly in the middle of
the previous night. She said that about 11 a.m. on the previous
day some emetin from a hypodermic syringe had got into her eye.
There was slight swelling of the upper lid, injection of the bulbar
conjunctiva and marked photophobia. The cornea showed fine
staining on the application of fluorescein.

Remarks.—Since I have been in Mesopotamia I have seen six
cases of this condition; all the patients were nursing sisters. It
will be observed that the symptoms did not come on till about
ten hours after the accident. The treatment employed was hot
fomentations and atropin. In about ten days the patients were fit
for duty and the cornea had become quite normal.

Glaucoma occurring in comparatively young patients.

(1) Pte. A., W.I. Regt. (Negro), aged 27 years, complained of
great reduction of vision in left eye, and commencing failure of
vision in the right eye. Vision of R.E. was 6/12, of L.E., fingers
at two feet. Tension was + 1 in both eyes. There was no ciliary
congestion and very little pain. Fundal examination revealed deep
cupping of left disc and slight cupping of right disc. Both eyes
were trephined. After one month vision was R.E. = 6/6, L.E. =
Fingers at six feet.

(2) Pte. G., R.A.M.C., aged 29, complained of a dull left
supra-orbital pain. He volunteered the statement that he sees coloured rings round the lamp at night. Tension appeared to be slightly raised in the L.E. Vision with his correction—3 D sph.—2 D cyl., was R.E. = 6/9, L.E. = 6/12. The nasal portion of the left field of vision was markedly reduced. The nasal portion of right field showed only slight reduction. Both eyes were trephined and one month later the vision was the same as at time of admission and the pain and tension had gone.

Remarks.—The interesting point about these two cases was the age of the patients. The youngest patient I have ever seen with primary glaucoma was a girl of 10 years.

Quinine Amaurosis.—(1) U. S., Hindu coolie, aged 25, gave history that three days previously he had become more or less suddenly blind in both eyes while he had been in hospital under treatment for fever. I ascertained from the medical officer that he had only had 20 grains of quinine one day and 10 grains the day following. The state of his eyes on admission was as follows: pupils moderately dilated, no reaction to light, no perception of light apparently present. On fundal examination it was found that both discs were very pale and the vessels very attenuated, some of the arteries appearing like white threads. Patient was kept under observation for three weeks, but there was no apparent improvement in his condition. He was then invalided to India and I have heard nothing further about him.

(2) General S., aged 47. Was first seen by me on November 1, 1917. History was that patient was being treated for benign tertian fever. On October 23, 1917, at 4 p.m., he was given 10 grains of quinine bichloride and another 10 grains at 7 p.m. A few hours later he became very deaf and had buzzing in the ears. On November 24, 1917, he was very deaf. In spite of this he was given 5 grains of quinine at 9 a.m. and 12 noon on October 24, 1917. That same afternoon he became cyanosed and almost completely blind. Stimulants were then given, and the same evening he perspired freely, but the vision remained very dim. On October 25, 1917, vision improved, but still he could not read or distinguish objects across the room. After this he steadily improved. When I saw him his vision with his correction was 6/6. The fields of vision were almost normal, and there was no change in the fundi. He told me that, although he had been in India for twenty-five years, he had never taken quinine before.

Remarks.—In both the above patients comparatively small doses of quinine had been taken, but apparently both were very susceptible to the drug. As is well known, this is a very rare complaint, so that I was fortunate in having seen two cases in one year.

Case illustrating the effect of glare glasses on some individuals.—Colonel A., aged 52, complained that he had a tired and aching
feeling in his eyes. His refraction and fundi were normal. He wore the ordinary presbyopic reading glasses. I ascertained that he wore fairly dark glare glasses most of the day. On discontinuing their use, his symptoms at once disappeared.

Remarks.—My attention was first drawn to this point by the effects of glare glasses on my own eyes many years ago. After their use I got headaches, and my eyes were very sensitive to light. I gave them up over eighteen years ago and have never again used them. The case recorded is one of eight cases amongst officers who had a similar complaint and who got rid of all their symptoms on discarding their glare glasses. Myopes seemed to be immune from those bad effects, and on the contrary obtained relief from their use. The average man usually uses fairly dark glasses, and no doubt this leads to a greater strain on the accommodation. Several motor drivers in the R.A.S.C. have told me that they do not use their goggles as they gave them headaches. The rapid relief of symptoms was so remarkable in all the cases that I consider the trouble was due to the glare glasses and was not a mere coincidence.

In conclusion, I wish to express my thanks to Captains Doyne and Spencer, the ophthalmic specialists of Baghdad and Amara respectively, for much of the information contained in this report.

---

ADDITIONAL NOTE ON FREE INSTILLATION OF COCAIN WITH ADRENALIN, AND OF ESERIN IN CATARACT EXTRACTION

BY

H. HERBERT, Lt.-Col., I.M.S. (Retd.),
NOTTINGHAM

Since the writing of the inconclusive paper published in the April (1919) issue of this Journal, p. 152, the free use of cocain with adrenalin has been continued. And it has been generally followed by repeated instillation of eserin, after simple or "modified simple" extraction. The experience, as a whole, relates to 600 cataract extractions.

There is one definite practical observation to be recorded, apparently of some value. So far as I could judge, sensation in the iris disappears under cocain and adrenalin instillation, step by step with the reaction of the pupil to light. In testing the reaction a lens has been used to focus the light from the window on the pupil, the patient lying ready for operation, only the one eye being opened for the test. The progressive loss of pupillary activity