cornea and the degree of transparency of the conjunctiva are shown to have a relationship to the incidence of sickness in a group of healthy people.

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OCULAR DECOMPENSATION*

BY

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THE attitude towards the significance of refractive errors, accommodative anomalies and abnormal ocular muscle balance has changed considerably during the past few years. This change has been accelerated by the experience of a certain type gained in the armed forces. In them large numbers of individuals of both sexes were seen, who, in the ordinary course of events would never have presented themselves for examination. These cases fall into two groups (1) men and women whose visual acuity was found, during routine testing, to fall below required Service standards. (2) Those with headache as the main symptom. This is probably the commonest single complaint met with in the army and is much more frequent than among civilian patients. As very few are allowed to escape an examination for "a refractive error" the number in this group is very large. It may be mentioned in passing that it was in only the minority that an ocular cause for the headache could be substantiated.

When reviewing numbers of cases of these types it is immediately obvious that the majority had been able to do their civilian work quite happily and without difficulty in the presence of refractive errors of all grades very often with some heterophoria as well. It was only when called upon to do other types of work or the same work under less favourable conditions that some of them developed symptoms.

In other words ocular symptoms are due not so much to the

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defects in themselves as to a breakdown in the compensatory factors which exist in even the so called normal eye. These factors are complex and involve psychological and mental as well as physical components. In this connection it is interesting to watch the development of symptoms when an incorrectly orientated cylinder, which has been worn for some time, is replaced in the correct axis. The resistance often shown by the patient to this change is remarkable.

In order to emphasise as strongly as possible the dynamic nature of visual symptomatology it is suggested that the terminology of the cardiologist be adopted. Before Mackenzie the heart murmur was looked on as a disease in itself, patients were treated for their murmurs irrespective of their cardiac capabilities. The conception of functional response to the environment revolutionised the whole approach to the heart case. Ametropia and heterophoria are still too often looked on as errors which must be corrected for themselves or for some supposed connection with other symptoms which are often of a neurotic character.

As in the heart, the ultimate cause of ocular visual symptoms is a breakdown in the neuro-muscular systems involved irrespective of the pathological anatomy present. This decompensation may be caused either by an increase in the amount of work to be done or by a decrease in the neuro-muscular resources available for the habitual tasks. Work is not used here in its mechanical sense but rather as the total of the factors such as size of object, intensity of illumination, background, etc., which are involved in visual occupations.

The great advantage of the term decompensation is that it implies the possibility of compensation. The statement that a patient has 12 degrees of exophoria for the near point gives no indication of the condition he is in, he may be symptom free or may be having considerable difficulty with near work. To say that he has decompensated exophoria of 12 degrees implies that not only is he having symptoms from his defect but that with treatment his previous state of compensation can be attained. Simple physical correction by the prescription of prisms offers little hope of this.

A low hypermetrope suddenly complains of trouble after near work. Up till now he has been well compensated but either his work has increased, the conditions of his work have worsened or he has become debilitated following either some obvious infection such as pneumonia or influenza or some less tangible physical or mental deterioration which can best be described as being "run down." He is suffering from decompensated hypermetropia and can in the majority of cases be treated without glasses. If he is approaching the presbyopic age his powers of recovery are limited, glasses may be needed as a temporary measure and should only be

prescribed as such. To call the condition accommodative asthenopia is really inaccurate as more often than not there is some associated heterophoria which helps to produce the symptoms.

Analogy is a dangerous form of argument and it is not desired to labour the point but it requires little thought to find examples of acute, subacute and chronic decompensation in the intra- or extra-ocular neuro-muscular systems.

This terminology will increase the ease with which the student will be able to acquire a rational viewpoint of the defects of the visual apparatus. Asthenopia of various types and muscle imbalance are terms out of current use in medicine and mean nothing to the average student. The analogy with the heart is sufficiently accurate, is easily understood and would help to bring ocular problems in line with general ideas.

He would realise that the prescription of glasses is the last and by no means the most important detail in dealing with a case of ocular decompensation. Attention must first be directed to the conditions of the man's work, his ocular hygiene and his general health. The correction of these factors may be of more ultimate importance than the prescription of a suitable lens. This is probably the most important indictment of the optician; not his inability to diagnose ocular disease but his inability to refuse glasses to anyone who comes for them.

The large number of people who wear glasses unnecessarily make a happy hunting ground for the quack who professes to cure their eyesight and to relieve them of their spectacles by means of exercises. It would appear as if he had a better appreciation of the dynamic nature of ocular dysfunction than those who prescribe the glasses.

NOTES ON ONCOCERCIASIS IN GUATEMALA*

BY

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ONCOCERCIASIS, or Oncoceircosis, also known as Robles' Disease, or Blinding Disease of Guatemala, is a new nosological entity, caused by a parasite which profoundly affects the visual organ in a great number of cases.

It was discovered in Guatemala in 1915, by Dr. Rodolfo Robles, a Guatemalan physician, prematurely dead, who entrusted the writer

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