HEADACHE OF OCULAR ORIGIN

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Headaches frequently are of ocular origin, and the fact that the eyes are used from 12 to 15 hours every day makes it important that, irrespective of the location of head pain or of its severity, the eyes should be examined by a competent oculist.

Very often the patients themselves are largely responsible for the incorrect diagnosis of many headaches of ocular origin. Most people do not like to wear glasses and because of the fear that they may be found necessary, important facts concerning the history of the headaches are withheld and certain symptoms which are not referable to the eyes may be emphasized in order that glasses will not be recommended. Therefore, a complete history should be elicited, and a very thorough examination should be made.

Headaches due to disturbances of the eye usually are bilateral; however, a sufficient number of unilateral headaches and pain are of eye origin that they too must be discussed.

The most important and the most severe of the unilateral causes is local inflammation which includes such conditions as iritis, iridocyclitis, choroiditis of inflammatory origin, and acute or inflammatory glaucoma. Evidence of these conditions not always is apparent, but the pain produced is severe, stabbing and boring in character. It radiates deeply through the orbit, over the side of the head, and down the neck into the shoulder. When such pain is present, the attention of an experienced oculist is required.

Spasms of the ciliary muscle may occur following thyroidectomy, during transitory hypothyroidism, ordinary hypothyroidism, or they may accompany parathyroid tetany. The pain produced by this condition is severe in character, of short duration, but of terrific intensity. Sudden blurring of images and soreness of the eye mark the onset of this disease and here again, a thorough examination of the eye should be made which should include a search for a refractive error, for evidence of parathyroid tetany, or a low basal metabolic rate.

Supra- and infraorbital neuralgia is another form of headache which requires a differential diagnosis. This neuralgia may be associated with a glaucoma or it may simulate in type and duration the pain that accompanies glaucoma. However, in the presence of glaucoma, the eyeball is found to be more red and hard. The pain is constant instead of stabbing, and there is vision loss.

Errors in refraction are by far the most frequent source of headache of ocular origin. The most common of these errors of refraction is hyperopia which may or may not be accompanied by astigmatism. Two

of the most important of the many factors which cause headache due to farsightedness are the constant effort of accommodation or just looking and the inability of the eyes to adjust to the inequalities in amount of hyperopia which usually exist in these cases. If astigmatism is associated with hyperopia, another factor is added to the production of pain. This pain is frontal or bitemporal, or it may be more noticeable on one side than on the other. Before treatment is prescribed for these patients, the occupation and the mode of living must be known, as well as the reading ability and use of light. Then a well-fitted pair of lens may be prescribed, which should be checked from time to time. This should be done after the use of homatropine or even atropine in testing the more severe forms and also in the younger patients. These glasses should be worn as a therapeutic measure, although, in some instances, it is necessary that they be worn only for reading. In some cases of hyperopia, the vision is cut down at first until the amount of relaxation of the ciliary muscle is equal to the amount prescribed in the lens in order that the effort of accommodation may be relieved. In such instances, considerable persuasion sometimes is necessary to convince a patient that the glasses are of benefit and that they must be worn for some time before the maximum benefit may be derived from their use. Each case must be considered as an individual problem, and it should be remembered that in the presence of hyperopia, no glasses should be discarded until they have been worn constantly for six months in order to determine accurately whether relief from symptoms may be gained from their use.

Patients with myopia usually do not complain of headache, but it may be present in some cases of nearsightedness where the eye is sensitive to light or where an inequality of the refractive error causes trouble. In other instances, the pain may be supraorbital or bitemporal, but ocular pain is not a common finding. A well fitted pair of glasses produces a happy patient who is able to see well. No medical prescription equals the return that a pair of such lenses gives in sight and happiness to the patient who has myopia.

Mixed and other errors of astigmatism such as corneal scarring, conical cornea and certain minor lesions produce pain. Although patients with these conditions wear glasses, they still are not always made comfortable, and even though the condition may be improved, it is not always wholly corrected. Constant ocular attention is required, and some patients never are relieved completely from their headache. Corneal lesions frequently change their shape and change the axis of the astigmatism.

No single phase of refraction is more important than is the treatment of muscle errors. The minor causes are glasses improperly fitted to

the face of the patient, tilted lens, too wide lens, frames which are off center or rotated in round frames, and rarely, eyes which are uneven in position, that is vertically, or the distance from center of nose is unequal.

Mild muscle errors present a serious problem, and they are disturbing to the patient's comfort, whereas the more severe errors, such as paralysis, may be insignificant so far as symptoms are concerned. In many cases, both the student who suffers from a nervous breakdown and the executive who is not able to concentrate are having trouble with their eyes.

Pain due to muscular instability or weakness is very common, and no relief can be secured unless the condition is corrected. Many factors aid in the production of muscle imbalance—general diseases such as hyper- or hypothyroidism, parathyroid tetany, Parkinson's disease, encephalitis, diabetes, allergy, or any severe debilitating state. An ocular muscle error may be constant or inconstant, mild or severe, but all are annoying to the patient and may lead to total incapacitation and a serious mental condition.

In the presence of muscle imbalance, the head pain is in the post-occipital or suboccipital region, or it may occur at the tip of the mastoid bones where the sterno-cleido-mastoid muscles are attached; usually however, it is suboccipital where the neck muscles are attached along the superior and inferior nuchal lines. This is due to the fact that the patient, in an effort to overcome the eye strain due to muscle imbalance, assumes certain positions of the head which in turn, produce cramps in the muscles of the neck or pain near the mastoid. Both glasses and muscle exercises may be prescribed in these cases and still the muscle error may remain uncorrected. In such cases, medical attention is required which is accompanied by treatment of the ocular muscle. Eye muscle surgery, either advancement or recession, is indicated in a number of cases where the error is too great to be corrected by exercise. There are no more grateful patients than those who are relieved from the pain caused by muscle errors, because in many of these cases, a diagnosis has been made of cervical arthritis and treatment for such a condition has been carried on for some time.

Occasionally, terrific headaches which are so severe that the patient is kept awake at night and which are accompanied by nausea and vomiting are thought to be symptoms of cerebellar tumors or abcesses. Careful examination often shows that such headaches are the result of only slight muscle error plus hyperopia, and this emphasizes the importance of a careful ophthalmological examination before any radical procedure is undertaken for the relief of a suspected cerebellar tumor in such circumstances.

It cannot be emphasized too strongly that a thorough examination of the eyes should be made in every case of headache, and if the headache is found to be of ocular origin, correct glasses or exercises should be prescribed. It must be remembered also that because a patient wears a pair of glasses, this does not prove that the eyes have been examined properly or that the disease which causes the condition has been corrected. In some cases, glasses may be worn a long time before new correction is necessary, while other patients require constant attention. The patient who has changed his occupation recently and sometimes the individual with what seems an insignificant position often are subjected to unusual eye effort. It should be remembered that glasses are much better for the patient than the numerous headache tablets and further, that the latter never correct the cause.

The decision whether glasses should be prescribed and worn is one for the oculist, and not one for the patient or the patient's parents, and they should not be cast aside indifferently by a medical man to appease a hypersensitive patient. The fact remains that until the cause is corrected properly, the head pain will persist.