

## MANAGEMENT OF THE PATIENT WITH CATARACT

A. D. RUEDEMANN, M.D.

The problem of what to do for the patient with cataract is not always easy to solve and usually it is of considerable importance to the happiness and welfare of the patient. Naturally, the individual wishes to know the cause for the gradual loss of vision. Since cataracts often occur in patients outside the age limits of the senile group, another cause must be found in many instances.

It has been our experience that, after those changes in youngsters and young adults up to 40 years of age have been classified as hereditary, traumatic, or uveal, as the case may be, cataracts coming on in the next twenty years—from 40 to 60 years of age—usually are due to other causes.

The group of hereditary causes have all been classified and taken care of. Those due to trauma definitely become fewer in number but several new types appear. First, a group of early lens changes are seen in women who have had disturbances of the endocrine glands. These are not necessarily limited to those patients who have had thyroidectomies and postoperative tetany, but there is a fair number of patients who have a mild form of hypoparathyroidism with definite lens changes. These patients may complain of recurrent ocular pain and transitory blurring of vision which is a forerunner of more definite changes. As a rule, this is due to a ciliary spasm associated with a mild Chvostek's or with Trousseau's sign. Fortunately, these cases are few in number and treatment can be instituted for the glandular disturbance which will arrest the progress of the lens changes.

A second group of adults have other endocrine disturbances, such as hypothyroidism, hypo-ovarianism (early menopausal changes), or hypoglandular changes. These do not necessarily come on following surgery, and it is good ophthalmology to have a competent endocrinologist make a thorough examination as he can often bring about marked alleviation of symptoms and, in many instances, avert the progress of the lens changes. In our experience, none of the lens changes which are already present have been cleared up.

A third group of patients have a nutritional disturbance that may not be ascertained easily. The patients give a history of longstanding malnutrition, faulty eating habits, or they have other evidence of vitamin deficiency such as a low vitamin A curve, peripheral neuritis, or minute petechial hemorrhages. This group comprises a very large number of patients—much larger than either of the first two. The reason for this is that many persons follow advice propounded by the

newspapers and advertisers and often such advice is faulty. Many patients at the age of forty feel that they can eat as they please and, in addition, the mid-life "spread" alarms many so that they become fadists and adhere to reducing diets. These diets usually are unbalanced and do not contain the constituents required for a normal diet. In this group belong a small number of cases of what are probably cataracts of allergic origin, but it is rather difficult to differentiate between those of nutritional origin and those due to allergy as the cause may be primarily nutritional and secondarily allergic. Nevertheless, in those people with food allergy, it is well to subject them to a thorough study as they may suffer from faulty nutrition by lack of proper assimilation. Associated with the lens changes in this group of patients may be mild photophobia, a glandular type of conjunctivitis with some excessive lacrimation, and an almost constant ocular fatigue not attributable to a need for new glasses or a refractive error. By proper management, such patients become very comfortable, are able to read with less difficulty, and I believe the progress of their lens changes is retarded. I doubt that lens changes of this group once under way ever stop completely.

To this group also belong patients with diabetes and cataracts. Here there is an associated change in the lens that is certainly due to the diabetes. I do not believe this is caused by the excess sugar but probably is due to some other dietary disturbance secondary to the diabetes. Many of these patients have changes in the fundus as well. It is not always those with a high sugar level who have this disturbance but many with a low level of sugar tolerance have cataracts. Cataracts may develop in the diabetic patient and, since it is true that the ratio is slightly higher than in patients without diabetes, the diet must be watched carefully for, once under way, the lens changes usually go on to maturity and operation must eventually be performed.

Lens changes due to reducing medicine have not disappeared entirely as many of the tablets are still on the market and some of the lens changes now seen are due to the previous toxic absorption. If we were able to trace other medication more directly, undoubtedly most cases of cataract would fall in this group.

The local treatment of cataracts has been unsuccessful in our hands—the instillation of drops to halt the progress of cataracts has proved of little value in any instance.

The use of some medication is often advisable to control the disease, especially if there is any question of subsequent swelling of the lens. Most of the medication should be directed to building up the general condition of the patient and this should be in the hands of a competent endocrinologist. In cases of nutritional disturbance, some one with

## MANAGEMENT OF THE PATIENT WITH CATARACT

knowledge of the proper dietary regimen should direct the general treatment. Infrequently, a weak solution to dilate the pupil for central opacities can be used. However, there usually are diffuse or peripheral changes and, therefore, the patient is not benefited.

Glasses may be changed as frequently as necessary but, unless definitely beneficial or necessary from a visual point of view, a change should not be made. The other lens changes, due to trauma or infection, must be handled according to the needs of the patient. Cases of uveal cataract require careful study and treatment if the eyeball is to be conserved aside from the cataract. Frequently, complete general and local rest are all that are necessary to halt the progress of the disease and bring the patient to a condition suitable for surgery.

The time and type of surgery to be performed always present a problem. It is my belief that a cataract in a youngster should have a discussion so that it may be absorbed, and the youngster have the benefit of a reserve eye and a much better cosmetic appearance. The hazard is slight at this time and is much less than later when the cataract is more dense and will not absorb as readily or at all, and a regular linear extraction may be required later.

In those changes occurring later in life, the lens should be removed by a linear extraction or by a method equal to it in safety and ease.

Special care must be exercised when patients have diabetes or hypoparathyroidism. The former require adequate treatment of the diabetes if a good result is to be obtained; if the treatment is sufficient, then the surgical results are equally as good. The statement that diabetic patients cannot be operated upon with safety is wrong; however, they certainly are not so successfully operated upon as the others except as adequate care and correct management.

The patient with hypoparathyroidism may have a low calcium level and if so this must be restored to a fairly normal level to prevent a generalized convulsion which is disastrous. The level of the blood calcium on the day before operation should be known before surgery is undertaken. Before doing any eye operation, it is well to know the blood calcium on every patient who has had a thyroid operation.

The patient with hypertension and a cataract can be put at rest in the hospital for several days previous to surgery. When the blood pressure reaches a normal level for that individual, he can be operated upon with success equal to that secured in any other patient. There is a hazard, but it need not become a major one.

The routine culture for organisms in the conjunctiva should be made on all patients coming in for cataract surgery. There should also be a

routine blood count and differential count in order to detect any unsuspected condition. The value of this is well illustrated by the case of a patient who came in for a cataract operation and was found to have lymphogenous leukemia which precluded operation at that time. Examination of the blood gave the following results: red cells, 3,400,000; white cells, 40,950; hemoglobin, 68 per cent; neutrophils, 9 per cent; lymphocytes, 91 per cent.

The level of the blood sugar should be known and regulated if necessary. A knowledge of the blood pressure is equally important.

A chronic cough should be treated if possible and the condition of the bowels should be known as well as the possibility of any urinary complication. The time to avoid trouble is before surgery is undertaken.

A bad mouth with abscessed teeth and pyorrhea should be cleared up. It is well to know that, if a complication occurs, all has been done to prevent it. These things may not be done and operation may still be performed, but over a long period of time visual results are not as good.

A degenerating globe on the opposite side should be removed. These old eyes may be the seat of low-grade uveitis and often cause trouble after operation.

Age is no factor in cataract surgery and the operation can be done at any time. The decision to undertake surgery belongs to the oculist, and the operation should not be deferred because a patient is too old. The factor of a fall and a broken hip must be weighed against the possible hazard of an operation. It is well to remember that old age and blindness are a most unhappy combination.

The surgery of cataract is so successfully done today that, with adequate preoperative care and fair technic, the average successful results are well over 90 per cent. No patient should be denied the opportunity for sight in his few remaining years except on the decision of a competent ophthalmologist. Remember that the patient in most instances is already blind so that the most that can happen is continued blindness and, with the marked success of cataract surgery, every patient should be allowed at least one trial for sight.