New York Society for ... October 5, 1942

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SOCIETY PROCEEDINGS

EDITED BY DR. DONALD J. LYLE

NEW YORK SOCIETY FOR CLINICAL OPHTHALMOLOGY

October 5, 1942

DR. ISADORE GIVNER, *presiding*

STANDARDIZATION OF THE SCHIÖTZ TONOMETER

DR. ADOLPH POSNER presented an exhibit and demonstration on this subject during the instructional hour.

DISASSOCIATION OF THYROTOXICOSIS AND OPHTHALMOPATHY IN GRAVES'S DISEASE

DR. SAUL HERTZ stated that there are cases in which no correlation between the degree of ophthalmopathy and the degree of thyrotoxicosis in Graves's disease exists. Low degrees of thyrotoxicosis may exist with serious ophthalmopathy, and vice versa. Cases of serious eye disturbances require special handling both from the diagnostic and therapeutic point of view and must be considered apart from the ordinary cases of Graves's disease. The eye disturbances often improve with iodine therapy, but the best results have been obtained with iodine and thyroid. Occasionally it has been necessary to add X-ray treatment to the thyroid. Thyroidectomy is definitely contraindicated in this type of case.

A recent survey by Dr. J. H. Means has indicated that, in a group of representative clinics, thyroidectomy preceded the orbital decompressions in over 90 percent of cases requiring orbital decompression. On the other hand, no orbital decompressions have been performed at the Massachusetts General Hospital Clinic for three years since the institution of the present policy of averting thyroidectomy in cases suspected of being in the special group of ophthalmopathic Graves's disease.

Pictures were shown to illustrate the difference between cases of the ordinary type of Graves's disease and those of the progressive or malignant exophthalmic type.

Discussion. Dr. Maurice Bruger stated that Dr. Givner and he had studied the effect of vitamins B_6 and E in eight patients with postthyroidectomy exoph-

thalmos. These vitamins were chosen because of their recognized value in some forms of muscular dystrophy. It was thought that there might be some influence on the myopathic changes in the extraocular muscles, the prime factor in the causation of exophthalmos. In addition, three patients were given ergotamine tartrate and one prostigmine bromide. Vitamins B_{12} and E were without effect on the degree of exophthalmos or on the extent of the lid retraction. Ergotamine tartrate, however, improved the Dalrymple sign appreciably without altering the exophthalmos. Prostigmine bromide was without measurable effect.

Dr. Daniel Kravitz asked Dr. Hertz how he accounted for the exophthalmos when the ocular muscles were not enlarged.

Dr. H. M. Katzin asked Dr. Hertz to enlarge on the subject of treatment of malignant exophthalmos with X-ray therapy to the thyroid gland.

Dr. Hertz, in closing, said that from the medical point of view, it seems not unbelievable that one could have edema of the orbital tissues and that the muscles need not necessarily be involved. He cautioned that one has to be very strict in placing the patient in the category of malignant exophthalmos. His experience with X-ray treatment has been limited. It has been effective in a few cases in which iodine and thyroid therapy did not fully control the condition.

Surgical Procedures for Exophthalmos in Hyperthyroidism

Dr. Edmund B. Spaeth stated that the surgical treatment of exophthalmos from thyrotoxicosis depends upon the degree of exophthalmos present, the rapidity of its progress, and the period at which it appears as a surgical situation, such as the stationary exophthalmos of thyrotoxicosis (regardless of whether or not a thyroidectomy has been done), and that type of exophthalmos which follows after a thyroidectomy.

Other complications, such as oculomotor disturbances, retraction of the upper lid, conjunctival edema, and an endangered cornea from lagophthalmos are all additional factors, frequently of serious import. It is these complications, as they appear, that control the seriousness of the condition being treated; also they decide, to a very large extent, the type of surgery that is necessary in any given case.

Malignant or progressive exophthalmos can be treated successfully only by some type of orbital decompression. The subzygomatic route for this, it seems, is as satisfactory a procedure as is the transfrontal approach for the removal of the roof of the orbit. Anatomically there should be no choice between the two when considering this type of exophthalmos.

Discussion. Dr. John H. Dunnington stated that operations done for cosmetic reasons are often disappointing to the patient. They expect too much in spite of our efforts to depict the true picture to them. He has, therefore, been inclined to operate only when the lagophthalmos or other symptoms demand action. Recession of the levator as described by Goldstein will remove the disfigurement caused by retraction of the upper lid, and in his opinion its use should be restricted to cases manifesting a marked exposure of the sclera above the upper corneoscleral margin. Lateral tarsorrhaphy narrows the palpebral fissure satisfactorily, and he believes the best technique is that described by Wheeler. In this operation a tongue of tarsus denuded of its epithelium is inserted into the opposite lid. This operation gives an acute angle to the external canthus and is far superior to the rounded one that follows after the use of the Fuchs technique.

The selection of the lid from which the tongue is to be carved will depend upon whether one wishes primarily to lower the upper lid or to raise the lower lid. A tongue from the upper lid inserted into the lower lid narrows the fissure chiefly by lowering the upper lid, while the reverse is true when the tongue is taken from the lower lid and inserted into the upper lid.

Intermarginal adhesions afford the necessary protection for the cornea in cases of lagophthalmic keratitis and should be inserted prior to the onset of extensive chemosis of the conjunctiva and edema of the lids. In his experience retrobulbar drainage for a prolapsed chemotic conjunctiva has not been necessary. Gentle massage with a glass spatula combined with liberal use of an antiseptic ointment has proved sufficient in the majority of instances.

Orbital decompression for progressive exophthalmos in thyroid disease

Dr. James L. Poppen recounted surgical experiences in relation to orbital decompression for progressive exophthalmos in a series of 25 consecutive cases at the Lahey Clinic. He stated that there is an optimum time for the operation and that it should not be withheld until the development of chemosis and perhaps corneal ulceration. Indications for the procedure consist of progressive exophthalmos of high grade together with progressive visual symptoms and often changes in the optic-nerve head. The operation is not serious and, in his experience, there is no operative mortality. The technique of the Naffziger operation with slight modifications was described.

Procrastination is to be deprecated when visual loss is detected, inasmuch as all other palliative treatment has been of no effect. The only possible exception seems to be the preoperative determination of the basal metabolic rate, in order to determine whether Lugol's solution and possible excision of thyroid remnants should be considered.

The symptom of diplopia in relation to extraocular palsies should receive attention. While such a condition may persist to some degree or possibly result from the operation, it is usually amenable to minor operative treatment in those cases that do not clear up spontaneously. Following the operation there is immediate postoperative improvement in the exophthalmos and a gradual recession usually continues over a period of years.

Discussion. Dr. Howard Naffziger described the characteristic pathologic changes found in the ocular muscles in malignant exophthalmos. He emphasized the points that the condition of the muscles in the ordinary cases of exophthalmic goiter is not known and that muscle changes are not necessarily the same in cases of malignant exophthalmos. He described his technique of orbital decompression and stated that a broader exposure can be obtained than with the subzygomatic approach. One reason for confusion as to the presence or absence of exophthalmos has been failure to distinguish "stare," or retraction of the upper or lower lid, from protrusion of the eyeball. Exophthalmos can be confirmed only by careful measurement with the Hertel exophthalmometer. Unilateral exophthalmos speaks for orbital neoplasm, rather than thyroid disease. Soley has found that eyes of more than 50 percent of patients with toxic diffuse goiter became measurably more prominent after thyroidectomy, contrary to the clinical impression of most clinicians.

Dr. Martin Cohen stated that he regarded the Naffziger operation formidable and that he has obtained the same results with the Krönlein operation.

Jesse M. Levitt,
Secretary.