As evidenced by this Journal, the many national and international meetings, and the increased awareness of profession and public alike, refractive keratoplasty has come to assume an important role in both the practice of or the referral base of a number of ophthalmologists. As a long-time critical proponent of refractive keratoplasty, I would like to take the occasion of this fourth issue of our new Journal to make some comments upon our burgeoning specialty.

Although some of us began our interests in refractive keratoplasty as much as two decades ago, the majority of practitioners are recent converts. I would like to begin, therefore, by taking the long view occasioned by my long immersion in this subject. It is my hope that this may influence newer proponents to proceed with caution, not espousing immediately the newest technique, without first exploring and understanding those techniques longer practiced and proven that form the basis of all refractive surgery techniques. Before attempting the first clinical case of any refractive surgical procedure, the ophthalmic surgeon must understand thoroughly the principles of manipulation of the cornea for refractive benefit. He or she should never perform an operation by rote or by, if you will, computer, since the old adage still applies "garbage in, garbage out." Errors are much less likely to occur if the surgeon understands completely the principles behind the surgical technique and bases his or her eventual decision on personal judgment aided but not dictated by computers, formulas, etc. This was particularly the case in our early days of working with the Barraquer techniques where the instruments were more crude and the machines less reliable. I recall several occasions where our basic knowledge of the principles and mathematics enabled us to complete a procedure that would have had to be aborted had we depended entirely upon our instrumentation. The same is true of the newer procedures. I have seen surgeons beginning their clinical experience without having clearly in mind such basic concepts as steeper and flatter meridians and the effect of flattening or steepening on the corneal refraction. One of the services that I hope the Editor of our Journal will provide is a complete bibliography of the early literature and, from time to time, to reprint classic articles or chapters from books, especially those that carefully detail the principles as well as the practice of a given procedure or procedures.

Another area that I feel is of importance to the refractive keratoplasty surgeon is the proper identification or nomenclature for the various procedures currently in our armamentarium and those to be added to it. In a recent editorial, I emphasized the importance of avoiding eponyms to the exclusion of descriptive terminology. I might add to this the elimination of the practice of describing procedures by initials. This is not only confusing to the surgeon or another physician reading the surgeon's report, but to our third party carriers. We now have seen even initialization of an eponym trademarked. An excellent article, authored by George Waring, will be appearing shortly in another major journal detailing a classification scheme espousing the above principles. Before presenting this material he queried a number of refractive keratoplasty surgeons, including Dr. Barraquer and myself, and has presented a synthesis of their views and his in an understandable and logical format.

Finally, I should like to make a plea for not only this Journal, but all educational publications and programs to maintain and practice a broad approach to our specialty of refractive keratoplasty. Unlike cataract surgery, where a relatively limited approach can achieve excellent results in the majority of cases, refractive keratoplasty requires that the surgeon consider a number of different techniques before approaching the individual case. He or she should then select a technique best suited to compensate the refractive error with the greatest accuracy and least morbidity.

It has become generally recognized that when used above 6 dipters of myopia, radial keratotomy rapidly falls off in accuracy and myopic keratomileusis becomes the procedure of choice. Although there is some promise that epikeratophakia may be substituted, the prolonged recovery and our lack of knowledge of long-term results preclude its use in many cases at the present time. In the management of hyperopia, certainly hypermetropic ker-
Prednisolone acetate in a combination. Poly-Pred® (prednisolone acetate, neomycin sulfate, polymyxin B sulfate).

Liquifilm® sterile ophthalmic suspension

INDICATIONS AND USAGE: A steroid/anti-infective combination is indicated for steroid-responsive inflammatory ocular conditions for which a corticosteroid is indicated and where bacterial infection or a risk of bacterial ocular infection exists.

Ocular steroids are indicated in inflammatory conditions of the palpebral and bulbar conjunctiva, cornea, and anterior segment of the globe where the inherent risk of steroid use in certain infective conjunctivitides is accepted to obtain a diminution in edema and inflammation. They are also indicated in chronic anterior uveitis and corneal injury from chemical radiation, thermal burns, or penetration of foreign bodies.

The use of a combination drug with an anti-infective component is indicated where the risk of infection is high or where there is an expectation that potentially dangerous numbers of bacteria will be present in the eye.

The particular anti-infective drugs in this product are active against the following common bacterial eye pathogens: Staphylococcus aureus: Escherichia coli: Hemophilus influenzae: Klebsiella: Enterobacter species: Nelsneria species; and Pseudomonas aeruginosa.

The product does not provide adequate coverage against: Serratia marcescens: Streplococcus including Streptococcus pneumoniae.

CONTRAINDICATION: Epithelial herpes simplex keratitis (dendritic keratitis), vaccinia, varicella, and many other viral diseases of the cornea and conjunctiva. Mycobacterial infection of the eye. Fungal diseases of the ocular structures. Hypersensitivity to a component of the medication. (Hypersensitivity to the antibiotic component occurs at a higher rate than for other components.)

The use of these combinations is always contraindicated after uncomplicated removal of a corneal foreign body.

WARNINGS: Prolonged use may result in glaucoma, with damage to the optic nerve, defects in visual acuity and fields of vision, and posterior subcapsular cataract formation. Prolonged use may suppress the host response and thus increase the hazard of secondary ocular infections. In those diseases causing thinning of the cornea or sclera, perforations have been known to occur with the use of topical steroids. In acute purulent conditions of the eye, steroids may mask infection or enhance existing infection. If these products are used for 10 days or longer, intraocular pressure should be routinely monitored even though it may be difficult in children and uncomplicated patients.

Employment of a steroid medication in the treatment of herpes simplex requires great caution.

There exists a potential for neomycin sulfate to cause cutaneous sensitization. The exact incidence of this reaction is unknown.

PRECAUTIONS: The initial prescription and renewal of the medication order beyond 60 milliliters should be made by a physician only after examination of the patient with the aid of magnification, such as slit lamp biomicroscopy and, where appropriate, fluorescein staining. The possibility of persistent fungal infections of the cornea should be considered after prolonged steroid dosing.

ADVERSE REACTIONS: Adverse reactions have occurred with steroid/anti-infective combination drugs which may be attributed to the steroid component, the anti-infective component, or the combination. Exact incidence figures are not available since no denominator of treated patients is available.

Reactions occurring most often from the presence of the anti-infective ingredients are allergic sensitizations. The reactions due to the steroid component in decreasing order of frequency are: elevation of intraocular pressure (IOP) with possible development of glaucoma, and infrequent optic nerve damage: posterior subcapsular cataract formation: and delayed wound healing.

Secondary Infection: The development of secondary infection has occurred after use of combinations containing steroids and antimicrobials. Fungal infections of the cornea are particularly prone to develop coincidentally with long-term applications of steroid. The possibility of fungal infection must be considered in any persistent corneal ulceration where steroid treatment has been used.

References

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