PHACOEMULSIFICATION – INDICATIONS, CONTRA-INDICATIONS AND RESULTS

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INDICATIONS FOR PHACOEMULSIFICATION

According to Cleasby, the advantages of Phacoemulsification are as follows:

1) Visual Advantages, (a) Earlier rehabilitation. A small incision severs fewer corneal nerves than a large incision. Corneal anesthesia following phacoemulsification is therefore extremely limited, and a contact lens can safely be worn almost immediately post-operatively. In some cases, it is possible to place a hard contact lens on the eye immediately following the emulsification. If the patient has worn contact lenses prior to surgery, he'll have no difficulty accommodating the hard lens. Soft lenses can also be used immediately post-operatively, however, they require the use of post-operative medication without preservatives. In most cases, contact lenses are prescribed 2-3 weeks following the surgery. The refractive error stabilizes sooner because of the small incision, the cornea returns to its normal curvature usually in a matter of hours or days. (b) Less astigmatism. Where preoperative k-readings have been taken in a large series of patients, the average induced astigmatism following phacoemulsification was 0.37 diopters. This is considerably less than the astigmatism generally reported using a larger incision.

2) Physical Advantages — (a) Earlier return to normal activities. Following the procedure no restrictions are imposed on the patient. Within hours of the operation, the patient is allowed all of his normal activities including working at his job, traveling, etc. without a shield or a patch being required. (b) Less physical deterioration from inactivity. The well-known fatigue following hospitalization is absent with this procedure since the patient is performed under local anesthesia, the patient can walk back to his room and immediately be ambulatory. (c) Less discomfort. There is usually little irritation from the one suture covered by a small conjunctival flap. (d) Less redness and swelling. Because of a lack of trauma to the conjunctiva and cornea, the eyes are relatively quiet without lid edema.

3) Safety — (a) Less danger from post-operative trauma. Because of the shelved incision and because of its size, even a severe blow to the eye will not generally cause loss of the anterior chamber. (b) Less danger from and earlier performance of postoperative diagnostic procedures, e.g., gonioscopy, scleral indentation, and ophthalmodynamometry. (c) Less danger from and earlier performance of post-operative surgery, e.g., retinal reattachment, photocoagulation, and posterior vitrectomy. (d) Earlier and better post-ope-
operative fundus view than obtained with standard intracapsular surgery since the intraocular pressure returns to normal sooner. (e) Much safer in the presence of diseases associated with poor healing, e.g., trachoma, rheumatoid arthritis, malnutrition and diabetes. (f) Reduced operative complications. (g) Vitreous disruption or 'loss' is easier to correct and to obtain a wound free of strands. (h) Bleeding — lesser incidence and magnitude of bleeding from the wound and elsewhere, including expulsive choroidal hemorrhage. (i) Definitely lesser incidence of flat anterior chamber, iris prolapse, wound separation, vitreous touch, updrawn pupil and hyphema. (j) Probably lesser incidence of cystoid macular edema, pupillary block, hypotony, infection, and retinal detachment.

4) Versatility — (a) Easier and safer lens removal in posterior vitrectomy, and penetrating keratoplasty. (b) Easier and more effective correction of postoperative astigmatism by suture manipulation. (c) With intraocular lenses — phacoemulsification may prove to be the technique of choice in many cases.

5) Financial Advantages — (a) Immediate return to work is possible if circumstances and the condition of the other eye permit. (b) In general, less hospitalization. (c) Fewer changes in correction. (d) Fewer post-operative visits with resultant decrease in the amount of time away from work and travel expense. (e) Reduction of expense for organizations and agencies providing disability benefits.

CONTRA-INDICATIONS TO PHACOEMULSIFICATION

1) Brunescence cataracts. Although theoretically, any cataract no matter how brunescent can be emulsified, the amount of time it would take (5–10