“Preparing for modern cataract surgery: Patient education, axial length, cornea, endothelial and keratometry measurements as well as risk factor assessment for safer and better results”
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Purpose: To describe our protocol for cataract patients
Setting / Venue: Cornea, External Diseases, Cataract and Refractive surgery practice in Athens, Greece
Methodology
Our preparation for cataract surgery begins with obtaining a detailed medical and ocular history. This is followed by thorough eye examination which includes refraction, tonometry, a natural and a dilated anterior segment slit lamp examination. We also perform a dilated indirect fundoscopy and add HRT II™ evaluation for suspicious macular findings. Axial length measurements are done with both A-scan and optical biometry (IOLMaster™) to ensure the accuracy of our measurements. The choice of postoperative refractive target is tailored to the specific occupational needs and frequent activities of the patient. Endothelial cell counts and potential acuity measurements are likewise taken as added measure. Our choice of IOL (when available) is the Alcon: Acrysof SN foldable acrylic lens.
Preoperative counseling and informed consent are done by both the surgeon and the staff. This exchange is further facilitated with the use of printed and videotaped material to make certain that the patient understands the procedure and has realistic expectations. The patient confirms that he/she fully comprehends the procedure and accepts the methodology and potential risks. The patient’s understanding and consent to the procedure is documented in the chart. In our facility we utilize ultrasmall incision cataract surgery. We use the Dodick Neodymium-YAG Photolysis™ System (our team was the pioneer for sub 2 mm cataract surgery in 1999*) for bimanual cataract extraction through 1.4 mm cataract incisions. We utilize the Whitestar™ phacoemulsification system through same incision for harder nuclei and the Alcon Legacy 20,000™ for other routine cases.
Discussion: Cataract extraction is the most common surgery performed today. Most common cataract removal procedures in our practice are: phaco-clear cornea incision and we rarely do extra capsular cataract extraction. Patient education is crucial, it is important for the patient to know and clearly understand what to expect during and after the procedure. Patients diagnosed with pre-existing eye problems may have poor outcomes compared to other patients, and some of these conditions need to be dealt with specially by the surgeon (for example an capsular tension ring available in surgeries of patients with pseudoxfoliation, special care for cornea damage in patients with low pre-op cell counts).
With careful patient selection we have encountered only minor complications and have been able to treat some serious complications favorably. With this protocol we are able to improve our evaluation for cataract and provide to patients better information for the procedure.


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