

The surgical revolution in glaucoma

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ABSTRACT

Over the last 150+ years, glaucoma surgery has undergone an evolution in techniques. Indications, approaches, risk and post-operative recovery have changed considerably. In the last decade, a new genre of procedures has aimed to reduce the morbidity of the traditional filtering approaches, thus challenging the traditional treatment paradigm. The rationale, development, early results and potential future of the MIGS and related procedures will be presented.

Choices of IOL implantation following complicated cataract surgery

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ABSTRACT

Following complicated cataract surgery, capsular support is frequently compromised. If the anterior capsule is intact, the intraocular lens implant (IOL) can be inserted into the sulcus and secured by posterior optic capture. However, if the anterior capsular support is also compromised, the IOL should be anchored to the iris or sclera. The least invasive technique involves retropupillary placement and suturing of the haptics of a 3 piece IOL to the iris using 9/0 or 10/0 polypropylene, and Siepser Sliding Knot or McCanel suture. In patients where the surgical time has to be brief, a concave forward iris claw IOL may be enclaved onto the posterior surface of the iris. However, if the iris is damaged, it should first repair and if the damage is severe, iris fixation of the IOL should be avoided. Scleral fixation results in a stable IOL and is recommended especially in post-vitrectomy eyes. Goretex 7/0 or Polypropylene 9/0 should be used for suture fixation via a Hoffman pocket or partial thickness scleral flaps. Alternatively, intrascleral haptic fixation may be used whereby the haptics of the 3 piece IOL are retrieved through sclerostomies diametrically opposite to ensure IOL centration. Sclerostomies can be made through partial thickness sclera after raising the flap, or through partial thickness scleral incisions. A needle tract for the haptic is created adjacent to the sclerostomy and the haptic is tucked into the tract. The scleral and conjunctival incisions are sutured or glued. Regardless of the fixation technique, an adequate dissociated vitrectomy with triamcinolone acetonide must be done. In addition, a peripheral iridectomy is important to prevent pupil block and reduce the risk of optic capture. The surgeon should only attempt to fixate a dislocated IOL that he can safely retrieve, with the help of microforceps or one that is in the iris plane.