Glaucoma Surgery
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Glaucoma is a leading cause of irreversible blindness worldwide. Although there is a good consensus about a number of risk factors playing a role in the pathogenesis of the disease, the only treatment of proven efficacy is still the reduction of intraocular pressure.

The introduction of several new ocular hypotensive drugs in the last decades of the 20th century has greatly broadened the possibilities of medical therapy, initially reducing the overall number of glaucoma surgeries, at least in developed countries.

However, there is now a resurgence in the number of incisional procedures: some patients cannot achieve target pressures even with maximum tolerated medical therapy and many become intolerant to eyedrops because exposure to topical drugs is more intensive, both in terms of number of medications and of duration of medical treatment. Recent glaucoma patient group consultations have even cited chronic eye-drop use as a major cause of loss of quality of life.

Nowadays, the ocular surface of eyes undergoing surgery is often in a poor condition due to long-standing topical therapies and therefore antimetabolite use has become almost a rule. Moreover, patients increasingly demand perfection with unreal expectations of outstanding visual outcomes even in desperate cases. This has led to a greater specialisation with a concentration of most surgeries in larger referral centres. An implication of this trend is that glaucoma surgery is less and less practiced by general ophthalmologists and non-glaucoma specialists, many of whom have less direct experience of surgical issues in this field.

At the same time, the introduction of more sophisticated variations, new techniques and devices for filtering surgery, sometimes advertised as miracle cures, may be confusing for some specialists, for general practitioners and even for patients, who are more and more used to seeking information by themselves on the internet.

Therefore, the idea that inspired this book was to review the state of the art of glaucoma surgery, relying upon the competence of some of the most recognised and skilled glaucoma surgeons worldwide. They were invited to share their knowledge about the indications, techniques, outcomes, tips and pitfalls of the procedures in which they have an extraordinary hands-on experience. We are deeply grateful to
the authors, all of whom promptly and happily accepted and dedicated their precious time to this project, sharing their invaluable expertise with enthusiasm.

The first part of this book is focused on conventional glaucoma procedures: trabeculectomy, which is still the gold standard of glaucoma surgery, deep sclerectomy, which is the paradigm of the so-called nonpenetrating techniques, and glaucoma drainage device surgery, which is gaining favour in recent years even in nonrefractory glaucomas. A chapter is dedicated to the postoperative management of filtering procedures, which is of utmost importance for their success. The role of ocular surface and the issue of modulation of the scarring processes in glaucoma surgery are dealt with in two more chapters.

The second part of the book is aimed at discussing some new devices and techniques, which at this moment play a smaller role in the surgical armamentarium against glaucoma. Nonetheless, they are promising and should be considered with interest for some specific applications. They are also an indicator of the considerably renewed interest in the development of new methods of glaucoma surgery.

The last part of the book addresses the surgical approaches to some specific and challenging clinical forms: angle-closure glaucoma, concomitant cataract and glaucoma, paediatric glaucoma, and refractory glaucomas.

Our wish is that Glaucoma Surgery may be useful for residents and general ophthalmologists, providing them with a new and deeper insight into the fascinating and sometimes complex issues in glaucoma surgery, but also that it may be interesting for glaucoma specialists, inducing them to confirm or review their clinical practice for the benefit of their patients.

Finally, we hope that all readers, from those who go through all the chapters in detail, to those who will just cast a glance over some parts of the book, will find the content enjoyable and stimulating.

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