

# Preface

Endophthalmitis is an intraocular inflammation with exudation in the vitreous cavity and an intraocular colonization of microorganisms. It could occur due to any intraocular surgery, trauma, and occasionally infection at the remote site of the body. Post-cataract surgery endophthalmitis is by far the commonest because of the sheer number of cataract surgeries performed in the world. For similar reasons most prospective studies, either for prevention or treatment, have been done in post-cataract surgery endophthalmitis. With better understanding of pathogenesis, availability of superior drugs delivered at site, safer surgical techniques, and technologies, the incidence of endophthalmitis has reduced significantly from 2% in the 1940s to around 0.05% today. Despite these advances endophthalmitis is a dreaded condition that results in increased cost to the patients and to care providers and in loss of vision and/or the eye.

*Endophthalmitis. A Guide to Diagnosis and Management* is a comprehensive book on the subject. The book has seven sections: General Features, Specific Endophthalmitis, Science of Endophthalmitis Treatment, Prophylaxis and Prevention and Clinical Trials in Endophthalmitis. Each section editor has domain expertise in the subject.

Part I, General Features, comprises of six chapters that deal with the definition, general management, and differentiation from toxic anterior segment syndrome (TASS). Special chapters include the epidemiology and treatment trends in Asia, Europe, and North America. These chapters have documented the current practice of endophthalmitis care in the different continents of the world.

Part II, Specific Endophthalmitis, comprises of 14 chapters that deal with specific endophthalmitis caused by the most common etiology such as intraocular surgery (cataract, glaucoma filtration, penetrating keratoplasty, vitrectomy, intravitreal injection) and trauma and/or most common microorganisms such as fungus, Gram-negative bacteria, methicillin-resistant *Staphylococcus aureus* (MRSA), *Nocardia*, and *Bacillus*. Special chapters deal with endophthalmitis in children and cluster infection.

Part III to V, Science of Endophthalmitis Treatment, comprises of eight chapters that deal with the pharmacology, microbiology, and pathology of endophthalmitis.

Pharmacokinetics of drugs used in endophthalmitis and intravitreal antibiotics in endophthalmitis describe the science and rationality of antibiotic therapy in endophthalmitis. The microbiology section includes the techniques of sample collection and processing, basic microbiology of common infecting microorganisms and the global trends in microbial susceptibility.

Part VI, Prophylaxis and Prevention of Endophthalmitis, comprises two chapters that include the current knowledge and practice of endophthalmitis prophylaxis and the standard of care guidelines for safe intraocular surgery.

Part VII, Clinical Trials, comprises five chapters. Following the basic facts of clinical trials, the results of four clinical trials, two on prophylaxis and two on treatment, are analyzed for their value in clinical practice.

This comprehensive book could have not been possible without the help of all authors and section editors, nationally and internationally. Dr. Naren Aggarwal and Ms. Sowmya Ramalingam from Springer were exceptionally good in shaping the book from concept to production. I owe it all to my patients who not only trusted in my skills but also taught me a lot on the ground. I owe special thanks to Professor Harry W Flynn Jr from the University of Miami and Professor Narsing A. Rao, from the University of South California, the world experts in inflammation, infective endophthalmitis management and eye pathology for writing the forewords. All authors of this book think that the book will be useful to all in-training and practicing ophthalmologists.

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