Diabetic Retinopathy

Volume Editor

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35 figures, 3 in color, and 25 tables, 2007
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Preface

Over decades, there has been broad interest of ophthalmologists and diabetologists in diabetic retinopathy. Despite markedly improved prognosis for visual problems due to laser treatment and vitrectomy, diabetic retinopathy is still one of the leading causes of blindness worldwide. This book provides profound information about the newest developments in the diagnosis and treatment of diabetic retinopathy.

The pathophysiology of diabetic macular edema is complex and not yet fully understood. The current knowledge of mechanisms of development and progression of diabetic macular edema is described. An innovative approach of multimedial mapping methods enables to differentiate between three diabetic retinopathy phenotypes, allowing personalized management strategies. High-resolution imaging by optical coherence tomography provides additional, new information about morphological findings in diabetic retinopathy.

In this book, the standards and novel approaches of laser treatment of diabetic retinopathy are described, current surgical options for diabetic retinopathy and treatment techniques discussed, and the pathology of diffuse macular edema and implications for surgery proposed. Additionally, the treatment of diabetic retinopathy with triamcinolone and its complications, as well as the hypothesis for the use of somatostatin analogues are discussed. A new therapeutic approach is the use of vascular endothelial growth factor inhibitors in diabetic macular edema. Latest concepts of posterior vitreous detachment by pharmacological vitreolysis are described. An innovative pharmacological compound, the specific protein kinase C subtype β inhibitor ruboxistaurin mesylate, significantly reduces the risk of visual loss in nonproliferative diabetic retinopathy.
retinopathy and holds promise to improve the visual prognosis in patients with diabetic retinopathy.

The book provides an update of new insights into the pathogenesis, diagnosis and especially the treatment of diabetic retinopathy and gives detailed information about latest research achievements. Therefore, it is suitable for general ophthalmologists, retina specialists and diabetologists. It provides a collection of latest findings in diabetic retinopathy by excellent authors, and therefore, deserves the attention of everyone who is interested in this subject.

I want to thank all the coworkers for their great efforts in passing on their profound knowledge. The contents of the book will not only advance our understanding of diabetic retinopathy based on the provided knowledge, but also improve our diagnosis and treatment strategies in the permanent efforts to help the numerous patients who suffer from diabetic retinopathy and are threatened by visual problems.

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