Contents

1. Optical Coherence Tomography Angiography 1

- Anatomic Structure of the Healthy Retina *2*
- Optical Coherence Tomography Angiography of the Healthy Retina *5*
- OCTA of a Healthy Eye in a 24-year-old Patient *6*
- OCTA of a Healthy Eye in an 82-year-old Patient *6*
- Analysis of Capillary Layers using OCTA Angioanalytics *6*
- OCTA Comparison to Fluorescein and Indocyanine Green Angiography *9*

2. Choroidal Neovascularization 12

- Etiology and Epidemiology *12*
- Symptoms and Signs *13*
- Types of Choroidal Neovascularization *13*
- Diagnostics *13*
- Morphological Forms of Neovascularizations *15*
- Examples of Eyes with Neovascularization Shown by the OCTA *15*
- Therapy *15*

3. Dry Age-related Macular Degeneration 28

- Epidemiology and Etiology *28*
- Symptoms and Signs *28*
- Differential Diagnosis *30*
- Diagnostics *30*
- Therapy *31*

4. Neovascular/Exudative/Wet Age-related Macular Degeneration 33

- Epidemiology and Etiology *33*
- Symptoms and Signs *33*
- Differential Diagnosis *33*

- Diagnostics *34*
- Therapy *34*

5. Central Serous Retinopathy (Central Serous Chorioretinopathy, CSCR, CSR) 51

- Epidemiology and Etiology *51*
- Symptoms and Signs *51*
- Differential Diagnosis *51*
- Diagnostics *51*
- Therapy *53*

6. Polypoidal Choroidal Vasculopathy, Idiopathic Polypoidal Choroidal Vasculopathy 57

- Epidemiology and Etiology *57*
- Symptoms and Signs *57*
- Differential Diagnosis *57*
- Diagnosis *57*
- Therapy *59*

7. Diabetic Retinopathy 63

- Epidemiology and Etiology *63*
- Symptoms and Signs *63*
- International Clinical Diabetic Retinopathy Disease Severity Scale According to the American Academy of Ophthalmology *64*
- Differential Diagnosis *64*
- Diagnostics *64*
- Optical Coherence Tomography and Nonproliferative Diabetic Retinopathy *65*
- The Progression of a Nonproliferative into a Proliferative Form of Diabetic Retinopathy *66*
- Optical Coherence Tomography Angiography—Split-Spectrum Amplitude-Decorrelation Angiography Protocol *66*
- Nonproliferative Diabetic Retinopathy *67*
- Preproliferative Diabetic Retinopathy *67*
- Therapy *69*

8. Degenerative Myopia 78

- Epidemiology and Etiology *78*
- Symptoms and Signs *78*
- Differential Diagnosis *78*
- Diagnostics *79*
- Treatment *80*

9. Retinal Artery Occlusion 89

- Epidemiology and Etiology *89*
- Symptoms and Signs *89*
- Diagnostics *90*
- Treatment *90*

10. Retinal Vein Occlusion 92

- Epidemiology and Etiology *92*
- Symptoms and Signs *92*
- Differential Diagnosis *93*
- Diagnostics *93*
- Therapy *94*

11. Synchysis Scintillans (Cholesterolosis) 100

- Epidemiology and Etiology *100*
- Symptoms and Signs *100*
- Differential Diagnosis *100*
- Diagnostics *100*
- Treatment *101*

12. Posterior Vitreous Detachment 102

- Epidemiology and Etiology *102*
- Symptoms and Signs *102*
- Differential Diagnosis *102*
- Diagnostics *103*
- Treatment *103*

13. Epiretinal Membrane, Cellophane Maculopathy, and Macular Pucker 104

- Epidemiology and Etiology *104*
- Symptoms and Signs *104*
- Differential Diagnosis *104*
- Diagnostics *105*
- Therapy *105*

14. Vitreomacular Traction Syndrome 107

- Epidemiology and Etiology *107*
- Symptoms and Signs *107*

- Differential Diagnosis *107*
- Diagnostics *107*
- Treatment *111*

15. Macular Pseudohole **113**

- Symptoms and Signs *113*
- Differential Diagnosis *113*
- Diagnostics *113*
- Examples of Eyes with the Macular Pseudohole Shown by Optical Coherence Tomography Angiography *113*
- Therapy *113*

16. Lamellar Macular Hole **118**

- Epidemiology and Etiology *118*
- Symptoms and Signs *118*
- Differential Diagnosis *118*
- Diagnostics *118*
- Therapy *119*

17. Full Thickness Macular Hole, Stage 4 **123**

- Epidemiology and Etiology *123*
- Symptoms and Signs *123*
- Differential Diagnosis *123*
- Diagnostics *123*
- Therapy *125*

18. Retinal Detachment **128**

- Epidemiology and Etiology *128*
- Symptoms and Signs *128*
- Differential Diagnosis *128*
- Diagnostics *128*
- Therapy *129*

19. Toxoplasmic Chorioretinitis **131**

- Etiology and Epidemiology *131*
- Symptoms and Signs *131*
- Differential Diagnosis *131*
- Diagnostics *131*
- Treatment *132*

20. Albinism 135

- Epidemiology and Etiology *135*
- Symptoms and Signs *135*
- Differential Diagnosis *136*
- Diagnostics *136*
- Treatment *137*

21. X-linked Juvenile Retinoschisis 138

- Epidemiology and Etiology *138*
- Symptoms and Signs *138*
- Differential Diagnosis *138*
- Diagnostics *139*
- Treatment *140*

22. Radiation Retinopathy 142

- Epidemiology and Etiology *142*
- Symptoms and Signs *143*
- Differential Diagnosis *143*
- Diagnostics *143*
- Therapy *145*

23. Glaucoma 146

- Analysis of Peripapillary Capillary Network by OCTA *147*
- Optic Disk Vascularization *148*
- Glaucoma *148*

24. Optic Neuritis and Papilledema 166

- Epidemiology and Etiology *166*
- Symptoms and Signs *166*
- Differential Diagnosis *167*
- Diagnostics *167*
- Therapy *167*

Index *175*