

Contents

Section 1: Getting Started

1. **Introduction** 3
   Basic Principles of Fluorescein Angiography 3
   Basic Principles of Indocyanine Green Angiography 3
2. **Checklist for Fluorescein Angiography** 4
   Side Effects of Fluorescein Angiography 4
   Emergency Drugs to be Kept Ready 5
   Special Situations 7
   Consent for Fluorescein Angiography/Fluorescein Ophthalmoscopy 8
   Consent of Patient Representative/Surrogate 8
3. **Photographic and Angiographic Artifacts** 9
4. **Fundus Autofluorescence** 15
   Potential Applications of Fundus Autofluorescence 19
5. **Normal Fluorescein Angiogram** 21
   Choroidal Phase 21
   Arterial Phase 21
   Early Arteriovenous Phase 22
   Recirculation Phase 23
   Late Phase 23
   Normal Disc Fluorescence 24
6. **Abnormal Fluorescence** 25
   Hypofluorescence 25
   Hyperfluorescence 32

Section 2: Macular Disorders

7. **Drusen** 41
   Basal Laminar Drusen 52
   Radial Basal Laminar Drusen (Malattia Leventinese) 54
8. **Epiretinal Membrane** 57
9. **Macular Hole** 61
10. **Myopia** 68

11. Pigment Epithelial Detachment 75
12. Age-related Macular Degeneration—Dry Type 87
13. Age-related Macular Degeneration—Wet Type 102
14. Retinal Angiomatous Proliferans 126
Stage 1—Retinal Angiomatous Proliferans 128
Stage 2—Retinal Angiomatous Proliferans 129
Stage 3—Retinal Angiomatous Proliferans 130
Natural Course of Retinal Angiomatous Proliferans (RAP) 131
Clinical Suspicion of Retinal Angiomatous Proliferans (RAP) 134
15. Polypoidal Choroidal Vasculopathy 141
16. Choroidal Neovascular Membranes (Other than ARMD) 152
Myopic CNVM 153
Idiopathic CNVM 157
Juxtapapillary CNVM 161
Postinflammatory CNVM—GHPC 165
Postinflammatory CNVM—Toxoplasmosis 167
CNVM at Demarcation Line 171
CNVM after Vitreoretinal Surgery 174
CNVM Secondary to Healed Chorioretinal SCAR 176
17. Retinal Pigment Epithelial Rip 179
18. Choroidal Rupture 184
19. Angioid Streaks 192
20. Choroidal Folds 208
21. Acute Macular Neuroretinopathy 217
22. Central Serous Chorioretinopathy 224
23. Drug Toxicity 247
Chloroquine Toxicity 247
Hydroxychloroquine Toxicity 250
Desferrioxamine Toxicity 252
24. Photic Maculopathy 254
25. Cystoid Macular Edema 258

Section 3: Vascular Disorders

26. Arterial Occlusion 269
27. Coats' Disease 286
28. Diabetic Retinopathy 291
29. Venous Occlusion 304
Central Retinal Vein Occlusion 304
Branch Retinal Vein Occlusion 319
Hemicentral Retinal Vein Occlusion (HCRVO) 319
Venous Occlusions 324
30. Ocular Ischemic Syndrome 327
31. Eales' Disease 330
32. Familial Exudative Vitreoretinopathy 341

33. Hypertensive Retinopathy 344
34. Macroaneurysm 349
35. Parafoveal Telangiectasia 356
36. Purtscher's Retinopathy 369
37. Valsalva Retinopathy 374
38. Radiation Retinopathy 377

Section 4: Inflammatory Disorders

39. Acute Retinal Pigment Epitheliitis (Krill's disease) 387
40. Acute Posterior Multifocal Placoid Pigment Epitheliopathy 390
41. Geographic Helicoid Peripapillary Choroidopathy 397
42. Vogt-Koyanagi-Harada Syndrome 404
43. Sympathetic Ophthalmitis 415
44. Behçet's Syndrome 418
45. Intermediate Uveitis 424
46. Birdshot Retinochoroidopathy 428
47. Multiple Evanescent White Dot Syndrome 433
48. Punctate Inner Choroidopathy 436
49. Acute Retinal Necrosis 439
50. Posterior Scleritis 442
51. Choroidal Granuloma 446
52. Other Inflammatory Disorders 449
Parasitic Tracts—Case 1 449
Parasitic Tracts—Case 2 451
Disseminated Choroiditis 452
Toxoplasmic Retinochoroiditis 454

Section 5: Heredomacular Dystrophy

53. Bietti's Crystalline Dystrophy 459
54. Best's Disease 463
55. Stargardt's Disease (Fundus Flavimaculatus) 480
56. Progressive Cone Dystrophy 495
57. Other Heredomacular Dystrophies 504
Pattern Dystrophy 504
Foveal Schisis 507
Foveal Hypoplasia 509
58. Ocular Albinism 512
59. Retinitis Pigmentosa and Allied Disorders 517
Choroideremia 528
Gyrate Atrophy 531
Pigmented Paravenous Chorioretinal Atrophy 534
Fundus Albipunctatus 537
Benign Fleck Retina 541

Section 6: Optic Nerve Disorders

60. Optic Nerve Disorders 547
Optic Nerve Head Drusen 552
Papilledema 554
Neuroretinitis 556
Optic Neuritis 558
Leber's Hereditary Optic Neuropathy (LHON) 559
Anterior Ischemic Optic Neuropathy (AION) 562

Section 7: Tumors

61. Choroidal Nevus 567
62. Melanocytoma 570
63. Malignant Melanoma 573
64. Choroidal Hemangioma 575
65. Choroidal Osteoma 578
66. Retinoblastoma 581
67. Retinal Angiomatosis 584
68. Astrocytic Hamartoma 587
69. Other Tumors 590
Optic Nerve Hemangioma 590
Retinal Cavernous Hemangioma 592
Combined Hamartoma 593
70. Self Test 595

Glossary 601

Index 603