

Contents

Preface ix

Section 1 Cerebrovascular diseases

- Case 1 Dense basilar artery sign 1
- Case 2 Global anoxic brain injury 4
- Case 3 Acute infarction 8
- Case 4 Vertebral artery dissection 10
- Case 5 Subacute infarct 13
- Case 6 Subarachnoid hemorrhage 17
- Case 7 Intracranial aneurysms 21
- Case 8 Giant aneurysms 23
- Case 9 Acute intracerebral hematoma 26
- Case 10 Cerebral amyloid angiopathy 30
- Case 11 Primary CNS vasculitis 34
- Case 12 Reversible cerebral vasoconstriction syndrome 37
- Case 13 Moyamoya disease/syndrome 40
- Case 14 Cortical venous thrombosis 43
- Case 15 Developmental venous anomalies 46
- Case 16 Dural arteriovenous fistula 49
- Case 17 Cavernous malformation 52

Section 2 Demyelinating and inflammatory diseases

- Case 18 Tumefactive demyelinating lesion 55
- Case 19 Acute disseminated encephalomyelitis 58
- Case 20 Progressive multifocal leukoencephalopathy 62
- Case 21 Osmotic myelinolysis 65
- Case 22 Neurosarcoidosis 72

Section 3 Tumors

- Case 23 Posterior fossa masses in children 80
- Case 24 Low-grade glioma 92
- Case 25 Diffuse intrinsic pontine glioma 105
- Case 26 Pseudoprogression of GBM 109
- Case 27 Pseudoresponse in treatment of GBM 112
- Case 28 Low-grade oligodendroglioma 114
- Case 29 Primary CNS lymphoma 116
- Case 30 Pineal region tumors 125
- Case 31 Intraventricular masses 140
- Case 32 Colloid cyst 153
- Case 33 Primary intraosseous meningioma 161
- Case 34 Suprasellar meningioma 171
- Case 35 Pituitary macroadenoma 180

Section 4 Infectious diseases

- Case 36 Brain abscess 191
- Case 37 Neurocysticercosis 194
- Case 38 Tuberculosis 198
- Case 39 Creutzfeldt–Jakob disease 207
- Case 40 Herpes encephalitis 210

Section 5 Metabolic and neurodegenerative conditions

- Case 41 Wernicke’s encephalopathy 213
- Case 42 Hypertrophic olivary degeneration 217
- Case 43 Adrenoleukodystrophy 219

Section 6 Trauma

- Case 44 Mild traumatic brain injury 224
- Case 45 Isodense subdural hematoma 227

Section 7 Miscellaneous

- Case 46 Posterior reversible encephalopathy syndrome 229
- Case 47 Late-onset adult hydrocephalus secondary to aqueductal stenosis 232
- Case 48 Intracranial hypotension 234
- Case 49 Idiopathic intracranial hypertension 238
- Case 50 Rathke’s cleft cyst 240

Section 8 Artifacts and anatomic variations

- Case 51 FLAIR sulcal hyperintensity secondary to general anesthesia 245
- Case 52 Virchow–Robin spaces 250
- Case 53 Arachnoid granulations 255
- Case 54 Benign external hydrocephalus 257
- Case 55 Pitfalls in CTA 260
- Case 56 Asymmetric pneumatization of the anterior clinoid process 264

Section 9 Skull base

- Case 57 Fibrous dysplasia of skull base 267
- Case 58 Sphenoid bone pseudolesion 271
- Case 59 Clival lesions 276
- Case 60 Perineural spread 282

Contents

Section 10 Temporal bone

- Case 61 Cochlear dysplasia 285
- Case 62 Labyrinthitis ossificans 289
- Case 63 Superior semicircular canal dehiscence 292
- Case 64 Fluid entrapment in the petrous apex cells 294
- Case 65 Acquired cholesteatoma 299
- Case 66 Malignant otitis externa 304
- Case 67 Temporal bone fractures 307

Section 11 Paranasal sinuses

- Case 68 Allergic fungal sinusitis 310
- Case 69 Invasive fungal sinusitis 316
- Case 70 Spontaneous CSF leaks and sphenoid cephaloceles 324
- Case 71 Juvenile nasal angiofibroma 328

Section 12 Orbits

- Case 72 Idiopathic orbital pseudotumor 331
- Case 73 Optic neuritis 336

Section 13 Salivary glands

- Case 74 Intraparotid lymph nodes 342
- Case 75 Benign mixed tumor 344
- Case 76 First branchial cleft cyst 350

Section 14 Neck

- Case 77 Nasopharyngeal cysts 354
- Case 78 Cystic nodal metastasis 357
- Case 79 Low-flow vascular malformations 360
- Case 80 Parapharyngeal masses 364

Section 15 Thyroid and parathyroid

- Case 81 Third branchial apparatus anomaly 370
- Case 82 Parathyroid adenoma 372
- Case 83 String sign 378

Section 16 Vessels

- Case 84 Carotid artery dissection 381
- Case 85 Traumatic arterial injury 384

Section 17 Spinal column

- Case 86 Craniovertebral junction injuries 387
- Case 87 Odontoid fractures 390
- Case 88 Vertebral compression fractures 398
- Case 89 Sacral insufficiency fracture 401
- Case 90 Paget’s disease of the spine 405
- Case 91 Renal osteodystrophy 409
- Case 92 Calcific tendinitis of the longus colli 414

Section 18 Intervertebral discs

- Case 93 T2 hyperintense disc herniation 419
- Case 94 Disc herniation and cord compression 424
- Case 95 Postoperative disc herniation versus postsurgical scarring 427
- Case 96 Degenerative endplate alterations 430

Section 19 Spinal canal contents

- Case 97 Spinal dysraphism 434
- Case 98 Tethered spinal cord 445
- Case 99 Chiari I malformation 449
- Case 100 Spinal vascular malformations 455
- Case 101 Cord compression 458
- Case 102 Demyelinating/inflammatory spinal cord lesion 466
- Case 103 Subacute combined degeneration 469
- Case 104 Intradural cyst 471
- Case 105 Spinal CSF leaks 475
- Case 106 Leptomeningeal drop metastases 478

Index 486