Contents

Foreword ix
Acknowledgements x

1 Cerebrospinal Fluid and Infections of the Central Nervous System 1

Immune responses in the CSF 2
Lumbar puncture 5
Analysis of the CSF 7
Rapid diagnostic tests 12
Drugs and infections of the CNS 21
References 41

2 Acute Purulent Meningitis 49

General features of bacterial meningitis 49
Meningococcal meningitis 66
Haemophilus influenzae meningitis 77
Pneumococcal meningitis 87
Neonatal meningitis 93
Gram-negative bacillary meningitis in adults 102
Listeria meningitis 106
Shunt meningitis 110
Amoebic meningoencephalitis 113
References 117

3 Acute Lymphocytic Meningitis 135

General features of lymphocytic meningitis 135
Viral meningitis 143
Other causes not requiring antimicrobial treatment 158
References 163

4 Chronic Meningitis 169

General features of chronic meningitis 169
CNS tuberculosis 172
Brucellosis 196
General features of fungal diseases of the nervous system 204

Cryptococcosis 209
Candidiasis 215
Coccidioidomycosis 221
Paracoccidioidomycosis 228
Histoplasmosis 230
References 235

5 Suppuration and Focal Disease 249

Brain abscess 250
Subdural empyema 265
Extradural abscess 272
Cerebral venous sinus thrombosis and thrombophlebitis 274
Gradenigo's, sphenoidal fissure and Tolosa-Hunt syndromes 281
Orbital cellulitis 283
Neurological complications of infective endocarditis 285
Spinal infection 293
Aspergillosis 300
Nocardiosis 306
Blastomycosis 311
The phycomycoses 315
Actinomycosis 320
Toxoplasmosis 325
Cysticercosis 334
Paragonimiasis 340
Schistosomiasis 344
Echinococcosis 352
Coenurosis 358
Toxocariasis 358
References 360

6 Acute Encephalitis 381

General features of acute encephalitis 381
Arbovirus encephalitis 387
Herpes simplex encephalitis 406
Varicella/zoster virus 417
Epstein-Barr virus (EBV) 421
Cytomegalovirus 424
Human immunodeficiency virus (HIV) 426
Measles 435
Other viruses 436
Bacterial infections 436
Psittacosis 440
Other chlamydia 442
Rickettsial infections 442

Cerebral malaria 448
African trypanosomiasis/sleeping sickness 455
South American trypanosomiasis (Chagas' disease) 457
Other parasites 457
Congenital encephalitis 458
References 472

7 Poliomyelitis and Allied Infections 487

Poliomyelitis 487
Enteroviruses 70 and 71 498
References 500

8 Rabies 503

General features 503
References 514

9 Syphilis 517

General features 517
References 535

10 Parainfectious Conditions 539

Parainfectious encephalomyelitis 539
Toxic encephalopathy 544
Reye's syndrome 550
Acute cerebellar ataxia 554
Acute transverse myelitis 555
Guillain-Barré syndrome 556
Brachial plexus neuropathy 559
Bell's palsy 560
Benign myalgic encephalomyelitis 560
Specific infections associated with parainfectious phenomena 561
References 566

11 Infections Caused by Slow Viruses 573

Slow virus infections—unconventional agents 573
Progressive multifocal leucoencephalopathy 577
Subacute sclerosing panencephalitis 579
Tropical spastic paraparesis 583
References 584

12 Infections Affecting Peripheral Nerves and the Motor End-Plate 591

Leprosy 591

Herpes zoster 600
Diphtheria 608
Botulism 614
Tetanus 619
References 626

13 Infections of Muscle 633

Viruses 634
Bacteria 635
Parasites 642
References 651

Index 655