Contents

1. Short History of Epilepsy 1

Rai PV, Sreeram AC

- Further Progress in Epilepsy Management *4*
- Indian Scenario *6*

2. Febrile Seizures 7

Subhas GT, Priyamvada Tatachar

- Definition of Febrile Seizures *7*
- Epidemiology: Burden of Problems *7*
- Etiology: Predisposing Factors—Age *7*
- Fever—Infections *8*
- Immunization *8*
- Genetics *8*
- Other Associated Factors *8*
- Clinical Features *9*
- Classifications *9*
- Diagnostic Evaluation *10*
- Differential Diagnosis *10*
- Treatment of Febrile Seizures in Its Acute Phase *11*
- Recurrence Risk *12*
- Prophylaxis *13*
- Prognosis *14*
- Parental Counseling *14*

3. Epilepsy and Epilepsy Syndromes in Children 16

Raghavendra K

- Epidemiology *16*
- Approach to Child with Seizure *17*
- Etiology *19*
- Special Conditions in Children *23*
- Comorbidity of Childhood Epilepsy *25*
- Management *26*
- Pediatric Intractable Epilepsy Syndromes *27*

4. New-onset Epilepsy in Adults 30
Delon D'Souza, Thomas Mathew
- Primary New-onset Epilepsy in Adults *31*
- Secondary New-onset Epilepsy in Adults *34*
- Investigations *38*

5. Epilepsy in Elderly 41
Satishchandra P, Viswanathan LG, Sanjib Sinha
- Epidemiology, Classification, and Etiology *42*
- Provoked Seizures *42*
- First Unprovoked Seizure and Epilepsy *43*
- Diagnostic Evaluation *43*
- Antiepileptic Drug Selection *44*
- Antiepileptic Medications *44*
- Status Epilepticus among Elderly *45*

6. Women, Epilepsy and Pregnancy.....48
Agadi JB
- Effect of Pregnancy on Epilepsy *48*
- Effect of Epilepsy on Pregnancy *48*
- Teratogenic Effects of Antiepileptic Drugs *49*
- Cognitive Teratogenesis *50*
- Management Strategies *50*
- Contraception *51*
- Catamenial Epilepsy *52*

7. Seizures but Not Epilepsy 54
Srinivas HV
- Is it a Seizure? *54*
- Is the Seizure Provoked? *55*
- A Single Unprovoked Genuine Seizure—is it Epilepsy? *56*

8. Epilepsy and Psychiatric Aspects.....58
Kalyanasundaram S, Johnson Pradeep R

Depression and Anxiety Disorders in People with Epilepsy 58
- Epidemiology *58*
- Clinical Features *59*
- Etiologies *59*
- Role of Antiepileptic Drugs *60*
- Screening for Depression *60*
- Treatment Strategies for Depression and Anxiety Disorders in Epilepsy *60*

Psychosis in Persons with Epilepsy 61

- Epidemiology *61*
- Management *64*

Personality in Persons with Epilepsy 64

- Temporal Lobe Epilepsy *64*
- Juvenile Myoclonic Epilepsy *64*
- Absence Epilepsy *65*
- Frontal Lobe Epilepsy *65*

9. Genetics of Epilepsy 67
Shishir Duble, Sanjib Sinha, Satishchandra P

- Genetic Basis of Epilepsy *67*
- Mendelian and Nonmendelian Inheritance *69*
- Epilepsy with Complex Inheritance or Nonmendelian *69*
- Mitochondrial Inheritance *69*
- Epigenetics *71*
- Pharmacogenetics of Epilepsy *73*
- Challenges in Genetic Testing *74*

10. Investigations in Epilepsy 77
Viswanathan LG, Satishchandra P, Sanjib Sinha

- Electroencephalography *77*
- Other Electrophysiological Procedures *80*
- Imaging Modalities *80*
- Other Investigations for Epilepsy *83*

11. Emergencies in Epilepsy: Diagnosis and Management 88
Shiva Kumar R

- Cluster Seizures (Acute Repetitive Seizures) *88*
- Status Epilepticus *89*
- Nonconvulsive Status Epilepticus *96*

12. Drug Treatment: Choice of Antiepileptic Drugs 99
Sujit Kumar

- Goals of Treatment *99*

13. Diagnosis of Epilepsy 107
Sarma GRK

- Level 1: Identification of Seizure Type *107*
- Level 2: Identification of Epilepsy Type *109*
- Level 3: Identification of Epilepsy Syndrome *110*

- Etiology *111*
- Comorbidities *111*
- Investigation of Epilepsy *112*

14. Drug Withdrawal after Seizure Freedom: When and How? 115
Rai PV
- Benefits of Drug Withdrawal *116*
- Risks of Drug Withdrawal *117*
- Conditions Favorable for Drug Withdrawal *117*
- Conditions Unfavorable for Drug Withdrawal *118*
- Prognosis after Drug Withdrawal *118*
- Practical Guidelines for Drug Withdrawal *118*

15. Therapy Resistance and Management 122
Ravindranadh Chowdary M
- Definition and Its Evaluation *122*
- Epidemiology *122*
- Etiopathogenesis and Predictors of Refractory Epilepsy *122*
- Consequences of Refractory Epilepsy *123*
- Management *123*

16. Surgery for Epilepsy.....129
Bhaskara Rao Malla
- Goal of Surgery *129*
- Surgically Remediable Syndromes *129*
- Presurgical Evaluation *130*
- Surgical Procedures *131*
- Contraindications *135*
- Outcomes *135*

17. Epilepsy and Counseling 137
Akshita Hariharan
- Impact of Diagnosis *137*
- Stigma *137*
- Counseling *138*
- Role of a Clinical Psychologist *141*

18. Prevention of Epilepsy.....143
Chanda Kulkarni
- Primary Prevention *143*
- Secondary Prevention *144*

19. Epilepsy and Law.....146
Srinivas HV
- Epilepsy and Marriage *146*
- Epilepsy and Driving *146*
- Epilepsy and Employment *147*
- Epilepsy and Disability *147*
- Epilepsy and Insurance *147*
- Epilepsy and Income Tax *147*

20. Epilepsy: Education and Employment.....148
Rajendra P Joshi

21. Role of Yoga, Exercise, and Leisure Activities in Patients with Epilepsy.....151
Inbaraj G, Sathyaprabha TN
- Epilepsy and Yoga *151*
- Epilepsy and Exercise *152*
- Epilepsy and Cognition *153*

22. Diet, Television and Computer.....156
Damodar Rao HK

23. Indian Epilepsy Association: A Brief History 158
Muralidharan KV
- International Scenario *158*
- Birth of Indian Epilepsy Association *159*
- Activities of Indian Epilepsy Association *160*
- Annual Conferences *160*
- Indian Epilepsy Association: Bangalore Chapter *160*

Appendices 163

Index 167