

Contents

List of Contributors ix

1. **The Natural History of Epilepsy** 1
Byungin Lee and Sung-Eun Kim
2. **Challenges in Identifying Medication-Resistant Epilepsy** 14
Martin J. Brodie and Pauls Auce
3. **International League Against Epilepsy's Definition of Medication-Resistant Epilepsy** 20
Colin B. Josephson and Samuel Wiebe
4. **The Economic Impact of Medication-Resistant Epilepsy** 27
Charles E. Begley and Shin Jeong
5. **Social Consequences of Medication-Resistant Epilepsy** 34
Amy Crepeau and Joseph I. Sirven
6. **Mortality and Morbidity of Medication-Resistant Epilepsy** 39
Nuria Lacuey and Samden D. Lhatoo
7. **Models for Medication-Resistant Epilepsy** 51
Raman Sankar
8. **Neurobiology of Medication-Resistant Epilepsy** 62
Jerome Engel Jr
9. **Genetic Causes of Medication-Resistant Epilepsy** 69
Thomas N. Ferraro, Bradford D. Fischer and Russell J. Buono
10. **Malformations of Cortical Development as Causes of Medication-Resistant Epilepsy** 79
Ruben Kuzniecky
11. **Hippocampal Sclerosis as a Cause of Medication-Resistant Epilepsy** 87
Fahmida Amin Chowdhury, Beate Diehl and Maria Thom
12. **Autoimmune Causes of Medication-Resistant Epilepsy** 100
Anteneh M. Feyissa and Jeffrey W. Britton
13. **Medication-Resistant Epilepsy Syndromes in Children** 118
Elia M. Pestana Knight and Elaine Wyllie
14. **Medication-Resistant Epilepsy in Adults** 158
Martin Holtkamp and Felix Benninger
15. **Approach to the Treatment of Medication-Resistant Epilepsy** 171
John M. Stern
16. **Pharmacotherapy for Medication-Resistant Epilepsy** 179
Graham A. Powell and Anthony G. Marson
17. **Reproductive Health for Women with Medication-Resistant Epilepsy** 187
Jiyeoun Yoo and Cynthia Harden
18. **Resective Surgery for Medication-Resistant Epilepsy** 198
Barbara C. Jobst and Krzyszof A. Bujarski
19. **Ablative Surgery for Medication-Resistant Epilepsy** 210
Christian Hoelscher, Kofi-Buaku Atsina, Chengyuan Wu and Ashwini Sharan
20. **Stimulation Treatment for Medication-Resistant Epilepsy** 219
 1. **Vagus and Trigeminal Nerve Stimulation** 219
George Nune and Christianne Heck
 2. **Stimulation of the Anterior Nucleus of the Thalamus** 224
Mohamad Z. Koubeissi and Amr Ewida
 3. **Responsive Neurostimulation of the Brain** 230
Ritu Kapur and Martha J. Morrell

Contents

- | | |
|--|---|
| <p>4. Transcranial Magnetic Stimulation 236
Lara M. Schrader</p> <p>21. Diet Therapy for Medication-Resistant Epilepsy 241
Eric H. Kossoff and Daniel B. Lowenstein</p> <p>22. Botanical Treatments for Medication-Resistant Epilepsy 248
Steven C. Schachter</p> | <p>23. Psychiatric Comorbidities in Medication-Resistant Epilepsy 256
Andres M. Kanner</p> <hr/> <p><i>Index</i> 269</p> |
|--|---|