

# Contents

Foreword.....	IX
List of Authors.....	XI

## Section I: Semiology of extratemporal epilepsy

Overview <i>Jamie VanGompel, Greg A. Worrell .....</i>	3
Introduction to extratemporal lobe epilepsy <i>Soheyl Noachtar, Isabella Krotofil .....</i>	15
The ictal semiology of prefrontal epilepsies <i>Samden D. Lhatoo, David R. Sandeman .....</i>	31
Semiology of mesial frontal and parietal lobe epilepsy <i>Bassel Abou-Khalil .....</i>	43
Ictal semiology of parieto-occipital lobe epilepsies <i>Tonicarlo R. Velasco, Americo C. Sakamoto.....</i>	65
Ictal semiology of hypothalamic hamartomas <i>Andre Palmini .....</i>	77

## Section II: Non-invasive neurophysiology of extratemporal lobe epilepsies

Noninvasive neurophysiology of extratemporal lobe epilepsy: interictal epileptiform discharges <i>Felix Rosenow, Sebastian Bauer, Hajo M. Hamer .....</i>	95
---	----

Source localization of extratemporal spikes <i>John P. Turnbull</i> .....	109
--	-----

Magnetoencephalography in extratemporal lobe epilepsy <i>Richard C. Burgess</i> .....	119
--	-----

**Section III:**  
**Neuroimaging of extratemporal lobe epilepsies**

Imaging in extratemporal lobe epilepsy: Overview <i>Fergus J. Rugg-Gunn, John S. Duncan</i> .....	135
--	-----

High resolution magnetic resonance imaging in extratemporal lobe epilepsy <i>Neel Madan, Douglas L. Teich, David B. Hackney</i> .....	137
--	-----

Ictal SPECT in extratemporal lobe epilepsy <i>Wim Van Paesschen, K. Goffin</i> .....	167
---	-----

Functional MRI in extratemporal lobe epilepsy <i>Fergus J. Rugg-Gunn, John S. Duncan</i> .....	175
---	-----

PET in extratemporal epilepsy <i>Mar Carreño</i> .....	185
---	-----

Diffusion tensor tractography in extratemporal lobe epilepsy <i>Christian Vollmar, Beate Diehl</i> .....	195
---	-----

**Section IV:**  
**Invasive evaluation of extratemporal lobe epilepsies**

Subdural EEG recordings in extratemporal lobe epilepsy <i>Hajo M. Hamer</i> .....	205
--	-----

Depth-EEG recordings in extratemporal lobe epilepsy <i>Suela Dylgieri, Mustapha Benmekhbi, Maysa Sarhan, Dominique Chaussemy, Maria Paola Valenti, Pierre Kehrli, Édouard Hirsch</i> .....	217
---	-----

High frequency oscillations in extratemporal lobe epilepsy <i>Julia Jacobs, Jean Gotman</i> .....	235
--	-----

Seizure detection and epileptic focus stimulation in extratemporal lobe epilepsy <i>Gregory K. Bergey, Christophe C. Jouny</i> .....	249
--	-----

---

Electrical stimulation of invasive electrodes in extratemporal lobe epilepsy Caspar Stephani, Hans O. Lüders.....	261
Cortico-cortical evoked potentials in extratemporal lobe epilepsy Mohamad Koubeissi, Michael Zell .....	315
 <b>Section V: Surgery and outcome of extratemporal lobe epilepsies</b>	
Implantation of depth electrodes – stereo-electro-encephalography (SEEG) – in extratemporal lobe epilepsy Massimo Cossu, Francesco Cardinale, Laura Castana, Laura Tassi, Stefano Francione, Roberto Mai, Ivana Sartori, Lino Nobili, Francesca Gozzo, Marco Schiariti, Giorgio Lo Russo .....	331
Electrocorticography Warren T. Blume, Giannina M Holloway .....	345
Event-related ECoG spectra and functional mapping in extratemporal brain regions Mackenzie C. Cervenka, Nathan E. Crone.....	353
Insular and peri-rolandic epilepsy surgery: techniques Werner Surbeck, Alain Bouthillier, Dang Khoa Nguyen.....	367
Surgical treatment of hypothalamic hamartomas Ramez Malak, Elisabeth M.S. Sherman, Walter J Hader .....	389
Hemispherectomy in the treatment of intractable epilepsy Violette Renard Recinos, Pablo F. Recinos, George I. Jallo .....	409
Multiple subpial transections Marcin Zarowski, Mohamad Z. Koubeissi, Joseph Madsen, Tobias Loddenkemper .....	425
Vagus nerve stimulation: techniques and outcome James W. Wheless .....	435
Deep brain stimulation in extratemporal epilepsy..... Vicenta Salanova, Robert Worth, Thomas Witt, Dragos Sabau	457
SEEG-guided RF-thermocoagulation of extratemporal epileptic foci: a therapeutic alternative for drug-resistant inoperable partial epilepsies Marc Guénnot, Jean Isnard, Hélène Catenoix, François Mauguière, Marc Sindou....	465
Seizure outcome in extratemporal lobe epilepsies Américo C. Sakamoto, Eliana Garzon .....	477
Neuropsychological outcome of extratemporal lobe epilepsy surgery Philip S. Fastenau.....	485