

## **RESECTIVE EPILEPSY SURGERY**

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**Aim:** Epilepsy is one of the most common neurological disorder and despite modern medical therapy, seizures are not adequately controlled in one quarter of patients and they suffer severe morbidity, disability and social isolation. Over the years surgical treatment of epilepsy has become more sophisticated and accessible in majority of modern countries. The objective of this review is to report a series of patients with intractable epilepsy who underwent surgery.

**Methods:** Presurgical workup determines the epileptic zone, which removal can lead to seizure freedom with additional goal to spare the regions that mediate key neurological functions. Modern imaging and electrophysiological methods reveal more subtle changes within the brain, and without 3T MRI with postprocessing software, PET, SPECT and invasive monitoring, tailored epilepsy surgery will never develop further. Our comprehensive team consists of dedicated neurologists, neuropsychologists, neuroradiologists and neurosurgeons.

Hippocampal sclerosis is the most common cause of complex partial epilepsy of the temporal origin. Surgical resection is often the only way to gain the seizure freedom in patients due to very common pharmaco-resistency associated with that kind of pathology.

**Results:** In our series of over 100 selective amigdalohippocampectomies, seizure freedom is achieved in 85% of the cases. Malformations of cortical development (MCDs) are a heterogeneous group of disorders characterized by abnormal cerebral cortical cytoarchitecture. Surgical excision or disconnection are the procedures which commonly end up with seizure freedom if they are not within the functional cortex. Callosotomy is very efficient in patients with drop attack, and we have found it very usefull when VNS fails in epilepsy control.

**Conclusion:** Current types of surgical resections still produce better treatment results as modern neuromodulation techniques like VNS and DBS, and are the methods of choice in well evaluated patients, producing high rate of seizure freedom in up to 60-80% and very low rate of permanent morbidity. In authors series of patients, mortality rate is 0%, and morbidity rate is 4%.

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