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# Anais

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**THE MICROSURGICAL ANATOMY OF THE TEMPORAL LOBE: ITS ROLE IN EPILEPSY SURGERY**

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The temporal lobe is the most heterogeneous of the human brain. Complex partial seizures of the temporal lobe origin corresponds to around 70% of all patients with refractory epilepsy referred to surgical treatment. The surgical procedures to treat epilepsy disorders had a powerful impact in the quality of life of epileptical patients. The deep anatomical knowledge is paramount to perform a safe resection of the temporal lobe structures. When different angles of view, not only conventional anatomy but also microsurgical anatomy perspective, are studied, and unconventional dissection techniques, as fiber dissection, are performed, the safety of the procedure is increased due to the improvement of the see-through X-ray knowledge. The purpose of this paper is to show the relevant anatomy regarding the selective amygdalohippocampectomy via unconventional and conventional techniques dissections of the brain. Material and Methods: Twenty human brains fixed in formalin and six cadaveric heads fixed in Carolina's perfect solution® (Carolina Biological Supply company, NC) were dissected using 3X to 40X magnification of the surgical microscope. Ten brains and all heads were injected with colored silicone. The non-injected brains were used to perform the Klingler fiber dissection technique in five brains and coronal, sagittal, and axial slices for the other five brains. Each cadaveric head was placed in a head-holder to simulate the surgical position. The pterional craniotomy and the selective amigdalohippocampectomy was performed according to previous description (Yaşargil). Results: The temporal lobe and its relationships are presented and the epilepsy surgical procedures are discussed based on this anatomy. Conclusions: The temporal lobe anatomy regarding the selective amygdalohippocampectomy and its variations must be understood through different anatomical perspectives to avoid damage to vital structures.