Anterior selective amigdalo-hippocampectomy: report of 2 cases
Mauricio Mandel¹, Matheus Schmidt Soares¹, Felippe Saad¹, Eberval Gadelha Figueiredo¹, Manoel Jacobsen Teixeira¹
¹Department of Neurosurgery, University of Sao Paulo, Sao Paulo - Brazil

Introduction: Although anterior temporal lobectomy may be a definitive surgical treatment for epileptic patients with mesial temporal sclerosis, it often results in verbal, visual, and cognitive dysfunction. Studies have consistently reported the advantages of selective procedures compared with a standard anterior temporal lobectomy, primarily in terms of neuropsychological and psychosocial outcomes, and a comparable rate of seizure control.

Objectives: We describe the utilization of a technique for performing a selective amygdalohippocampectomy (AH) through a minisupraorbital approach.

Methods: A minisupraorbital craniotomy through a supraciliar incision and an anterior selective AH were performed in 2 patients. The two patients had the diagnosis of temporal lobe epilepsy with seizures originating from the right mesial temporal lobe since childhood. Both had mesial temporal sclerosis.

Results: The anterior route allowed removal of the amygdala and hippocampus. The image-guided system and post-operative evaluation confirmed that the amygdala can be accessed and removed through this route. The hippocampus was partially removed. Both patients are tapering off medication with no more epileptic seizures.

Conclusions: The anterior route for selective AH is a logical and straightforward approach to the mesial temporal lobe. Anterior selective AH is also a less invasive and safe procedure that provides early and positive identification of critical vascular and neural structures in the basal cisterns.