and A172 cells. Furthermore, previous in vitro treatment of glioblastoma cells with 0.3% v/v and 0.03% v/v POH showed inhibition of cell migration and antimetastatic activity in the in vivo model of the chick embryo with C6 cell line.

Such results indicate the chemotherapeutic action of POH by promoting cytotoxicity and arresting migration of murine and human glioblastoma cell lines.

KEY WORDS: glioblastoma chemotherapy, terpenes therapeutic use, gene expression, rat, in vitro, neovascularization.

*Efeito do tratamento in vitro e in vivo do monoterpeno álcool perílico no crescimento e controle da expressão gênica no glioma de alto grau (Resumo). Dissertação de Mestrado, Universidade Federal do Rio de Janeiro (Área: Neurologia). Orientadores: Abelardo de Queiroz-Campos Araújo; Thereza Quírico-Santos

***Address: Avenida Canal de Marapendi 1600 / 1303, 22631-050 Rio de Janeiro RJ, Brasil.*

ENTORHINAL CORTEX INVOLVEMENT IN HUMAN MESIAL TEMPORAL LOBE EPILEPSY (ABSTRACT)*. **DISSERTATION. MARSEILLE, 2001.**

DANIELA OLIVEIRA DE ANDRADE **

Introduction. Mesial temporal lobe epilepsy (MTLE) is the most frequent subtype of temporal epilepsy. There is some evidence that mesial temporal structures other than the hippocampus participate in seizure generation. In particular, an increasing number of studies demonstrate the involvement of the entorhinal cortex (EC) in the TLE pathogenesis.

Objective. The role of the EC in human MTLE seizures genesis has rarely been directly studied. This study aimed at determining the respective role of the EC and other temporal lobe structures in the genesis of MTLE seizures.

Method. Twenty seizures from 11 patients presenting with MTLE were analyzed. In addition to visual analysis of intracerebral recordings, a non-linear measure of signal interdependencies was used to evaluate the functional couplings occurring between temporal lobe regions during seizures. Seizures were classified according to two frequent patterns of MTLE seizure onset. The first pattern was the emergence of a low-frequency, high-amplitude rhythmic spiking followed by a tonic discharge. The second pattern of seizure onset was the emergence of a tonic discharge in the mesial structures.

Results. The first pattern was characterized by an initial synchronization between mesial structures and particularly between amygdala (A) and hippocampus(H). Results strongly suggested that the activity of the EC was secondarily triggered by the hippocampus or in some cases the amygdala. In pattern 2 seizures, the tonic discharge affected simultaneously the amygdala, the hippocampus end the entorhinal cortex. These seizures appeared to be initiated by interactions between the EC and one of the other mesial structures (amygdala or hippocampus). The entorhinal cortex was found to play a leader role suggesting that it is involved in the initiation of the ictal discharge.

Conclusion. The entorhinal cortex is involved in MTLE seizure generation in different ways. It appears to be a key structure in seizures that start with rapid discharges arising from mesial structures.

KEY WORDS: mesial temporal lobe epilepsy, entorhinal cortex, electroencephalography.

*Participação do córtex entorrinal na epilepsia do lobo temporal mesial humana (Resumo). Dissertação de Mestrado, Université D`Aix-Marseille I, CHU Timone, INSERM EMI9926. Orientador: Fabrice Bartolomei.

***Address: Pr. Igaratinga 206/1402, 41830-290 Salvador BA, Brasil. E-mail:danielaandrade@sarah.br*