

characteristics of people with seizures in the city of Mulungu do Morro, Bahia State, Brazil, an endemic area for cysticercosis (1.6%) and taeniasis (4.5%).

Study design: 1. transversal cut for prevalence determination and 2. prospective cohort.

Method: Firstly, it was performed the health agents training for knowing the epileptic crisis trial questionnaire, and then these questionnaires were applied in a sample of the local population. The individuals suspected of seizures and 10% of the negative sample were evaluated by the group neurologists. At the same time, people with clinical picture suggestive of epilepsy were convoked by the region's radio system. All the epileptic individuals identified in the population or convoked were accompanied in the reference ambulatory installed in the city of Mulungu do Morro for this purpose. The patients formed two groups; those who came from the community and those from the ambulatory. The data were inserted in an ACCESS 2000 bank and analyzed with the statistic program SPSS version 6.0. It was considered 95% confidence limits and employed the Z, qui-square and Fisher tests, according to the variables analyzed.

Results: 456 families were evaluated, making a total of 2138 individuals. The prevalence of active epilepsy was 6.2 / 1000 and accumulated, including single seizure, 22.9 / 1000. It was not observed varia-

tion between genders. The most affected ages were from 11 to 30 years (75%). The majority (75%) of the seizures begun before the ages of 25. Comparing the results from both groups (community and ambulatory) there was no differences related to gender, age or beginning of the crises. In both it was observed a predominance of one kind of seizure and of partial and secondary generalized crisis. Among the patients who came from the community there were more frequent single seizure or with long periods between crises, more recent crises, inactive epilepsy and a greater number of patients not using any kind of anti-epileptic drug.

Conclusion: In Mulungu do Morro epilepsy presents high prevalence, occurring among all ages and with a higher frequency of start in childhood and adolescence. The seizures from the community's patients tend to occur in the isolated or recurrent form with long periods between them, the highest numbers of cases are found in the inactive form and without the use of medication. The patients who looked for the ambulatory have a worse prognosis because they present seizures more frequently and usually are using medication.

KEY WORDS: epilepsy, epileptic crisis, prevalence, cysticercosis.

* Características clínicas e demográficas de indivíduos com crises epilépticas em uma área endêmica para cisticercose e teníase no Estado da Bahia (Resumo). Dissertação de Mestrado, Universidade Federal da Bahia (Área: Neurociências). Orientador: Ailton Melo.

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EFFECTS OF IN VITRO AND IN VIVO TREATMENT OF MONOTERPENE PERILLYL ALCOHOL ON PROLIFERATION AND GENE EXPRESSION CONTROL OF HIGH GRADE GLIOMAS (ABSTRACT)*. DISSERTATION. RIO DE JANEIRO, 2003.

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The search for new chemotherapeutic drugs has increased, especially for those that have a natural origin. Perillyl alcohol (POH), is a naturally occurring monoterpene, found in the essential oils of citrus fruits and other plants, with pronounced chemotherapeutic activity and minimal toxicity in preclinical studies. Standard treatment of anaplastic gliomas and glioblastoma multiforme consisting of surgical resection, radiation therapy and/or chemotherapy is rarely curative.

This study aimed to evaluate in vitro and in vivo effects of POH treatment, cell proliferation, changes in morphology, protein synthesis, and migration of distinct lineage of glioblastoma cells.

It was chosen in vitro culture systems and in vivo assays for assessing cellular migration. In vitro treatment of POH at concentrations of (v/v) 0.003%, 0.02%, 0.03%, 0.3%, 3% and 30%, consistently inhibited proliferation of murine C6 and human A172 and U87MG of glioblastoma cells.

In vitro treatment of POH at low concentrations 0.03% v/v and 0.3% v/v also produced marked changes in cell morphology and inhibited protein synthesis. Likewise in vitro assays with 0.3% v/v POH treatment for 15 minutes, initially caused marked alteration in membrane permeability and later (50 minutes) drastic changes in the cytoarchitecture of C6, U87MG

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 anti-metastatic activity in the in vivo model of the chick embryo with C6 cell line.

Such results indicate the chemotherapeutic ac-

tion 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 monoterpene 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

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

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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 and 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.

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