VIDEO-ELECTROENCEPHALOGRAPHY PROLONGED MONITORING IN THE DIAGNOSIS OF MEDICAL-LY REFRACTORY TEMPORAL LOBE EPILEPSY: APPLIANCE OF FUZZY HIERARCHY COPPE/COSENZA MODEL (ABSTRACT)*. **THESIS**. **RIO DE JANEIRO, 2004**.

*MARIA EMILIA COSENZA ANDRAUS***

Introduction. The video-electroencephalography (video-EEG) prolonged monitoring is an important diagnostic instrument in epilepsy, and provides valuable information to classify the type(s) of crisis and epileptic syndromes and to localize the epileptogenic zone (EpZ). The fuzzy logic gives an efficient and intelligent analysis method, able to make inferences over ambiguous systems, defining approximate values in a diffuse space of possibilities, and has been increasingly used in several areas.

Objective. To correlate clinical and electroencephalographic data obtained with video-EEG prolonged monitoring of patients with clinical and interictal electroencephalography criteria of medically refractory temporal lobe epilepsy (TLE) and to make inferences of diagnosis precision with the application of the Fuzzy Hierarchy COPPE/Cosenza Model (FHCCM); to investigate the frequency in which the clinical, syndromic and topographic diagnosis can be modified in these patients; and to evaluate the usefulness and applicability of fuzzy logic on the analysis of this type of study.

Method. Transversal, prospective study, that included 22 adult patients of Epilepsy Clinic of *Hospital Universitário Clementino Fraga Filho, Universidade Federal do Rio de Janeiro (HUCFF/UFRJ)*, with clinical and interictal electroencephalography criteria of medically refractory TLE, submitted to video-EEG prolonged monitoring, that varied from 48 hours to ten days. The grade of diagnosis precision between the monitoring and ambulatory diagnosis was infered by fuzzy logic. This study considered that the diagnosis of medically refractory temporal lobe epilepsy is an ambiguous system, best evaluated by fuzzy logic.

Results. The clinical diagnosis of epilepsy was modified in 2 (9%) patients, the syndromic in 6 (27.2%) and the topographic in 16 (72.7%) patients. The fuzzy indicators of ambulatory diagnostic precision were: 0.91 to clinical diagnosis; 0.74 to syndromic diagnosis and 0.36 to topographic diagnosis, considering 1 the maximal precision diagnostic value (attributed to the video-EEG prolonged monitoring results).

Conclusion. The video-EEG prolonged monitoring allowed to establish the clinical, syndromic and topographic correct diagnosis in these studied patients, with significant change in relation to the prior diagnosis; the fuzzy logic, by permitting the analysis of ambiguous systems, best defined a mathematical value of the correspondence between ambulatorial diagnosis of TLE and the video-EEG prolonged monitoring.

KEY WORDS: temporal lobe epilepsy diagnosis, electroencefalography, video-EEG prolonged monitoring, fuzzy logics.

**Address: Rua Djalma Ulrich 201 / 1201 - 22071-020 Rio de Janeiro RJ - Brazil. E-mail: andrauscm@aol.com.*

EARLY POSTURAL CONTROL IN PRETERM AND AT TERM INFANTS (ABSTRACT)*. **THESIS**. **CAMPINAS, 2004**.

*ELIANE DA SILVA MEWES GAETAN***

The aim of the study was to evaluate the development of early postural control in healthy infants born preterm and at term, during the six first months of age.

A longitudinal study was performed with a group of infants born with gestational age below 32 weeks (29w3d; $\pm$ 1w4d) (mean; SD); a group of infants with gestacional age between 32 and 36 weeks (33w5d; $\pm$ 1s2d); and a group of infants born with gestational age between 38 and 41 weeks (39w3d; $\pm$ 1w). The Chailey Levels of Ability assessment was used to evaluate the supine, prone, sitting and standing positions, observing the positions and movements of the body segments and their relationship with the weight bearing. Evaluations took place at 15 days, and in the 1st, 2nd, 3rd, 4th, 5th and 6th month of age; the gestational age of the preterm infant was corrected for 40 weeks. The presence of some interdelivery, neonatal and behavioral factors and diseases was statistically significant among the groups.