Masters:
Sleep Medicine

Name of Student:
Andreia Pereira Gomes

Subject of Thesis:
Study of the Microstructure of Sleep in Deaf People

Date of Defence:
14/07/2009

Mark:
Eleven (11)

Jury:

President: Professor Fernando Lopes da Silva (FMUL)
Orientator: Professor Teresa Paiva (FMUL)
Jury Members: Professor A. Martins da Silva (ICBASUP)

ICBAS-UP – Abel Salazar Institute of Biomedical Sciences of the University of Oporto

SUMMARY

This is a descriptive study, based in a sample composed by two groups: one with 8 elements belonging to the congenital deaf population, and other with 6 normal hearing subjects. This study used the data obtained by the acquisition of two nocturnal successive polysomnografic recordings (PSG) performed by Neurophysiology technicians and Professor Doctor Teresa Paiva in Electroencephalography Laboratory, Neurological Department of Santa Maria Hospital, Lisbon, between 2005 and 2007 (research project to evaluate the dreams contents of congenital deaf). In each recording sleep staging was done by visual analysis, together with the visual identification of sleep spindles and K complexes from sleep stage 2 NREM in 1st sleep cycle. After visual identification, spectral analysis of the sleep spindles and K complexes was performed. The main goal of this analysis was to determine the mean values of latency, duration, events density and power of frequency bands. The transient events density was computed together with the mean latency and duration of each sleep stage in the 1st sleep cycle.

Conclusion: The statistic results didn't show significant differences of the mean values for sleep macrostructure parameters, except for the %SPT S1. The Kcomplex and spindle densities were similar in both groups. The microstructure (CK and spindles) mean values from the power bands were important to demonstrate the existence of differences between the deaf group and the normal hearing population.