

## THESES

URBAN PREVALENCE OF EPILEPSY: A STUDY OF THE POPULATION OF SÃO JOSÉ DO RIO PRETO - BRAZIL (ABSTRACT)\*. **THESIS. SÃO JOSÉ DO RIO PRETO, 2002.**

MOACIR ALVES BORGES \*\*

**Introduction.** The purpose of this study was to survey the prevalence of epilepsy in the urban population of São José do Rio Preto, a medium-sized city, 360,000 inhabitants, at northwest of São Paulo state, Brazil.

**Method:** This population cross-sectional epidemiological study was carried out into two stages. The first was to access validation of the screening questionnaire on a neighborhood of the city; the second was the study of the prevalence in a randomly, stratified large-scale survey on the population of the city. A gold standard protocol, clinical history and neurological examination, was used to diagnose all the positive cases. The false negative cases were obtained after the validation of results by a mathematical model. For assessing prevalence Chi-square test and Confidence Interval (CI 95%) were used to analyze the results ( $p\text{-value} \leq 0.05$ ).

**Results:** The Validation of the screening questionnaire showed a sensitivity of 95.83% and a specificity of 97.8%. There were 17,293 individuals in the studied sample; the distribution according to sex, age group and race was similar to the general population. Lifetime crude prevalence of epilepsy was 18.6/1000 inh. (CI 95%;16.6-20.6); 8.2(CI 95%;6.8-9.5) for active and

10.4(CI 95%;8.9-11.9) of inactive ( considering at least one seizure in the last two years). The prevalence was 4.9(CI 95%;3.9-6.0) in the age group of 0 to 4 years old; 11.7 (CI 9%;10.0-13.3), 5 to 14 years old; 20.3 (CI 95%;18.2-24.4), 15 to 64 years old; and 32.8 (CI 95%;30.1-35.4), over 65 years old. The prevalence on the **A** economic class was 3.6(CI 95%;2.2-4.5), **B**, 9.0(CI 95%;7.6-10.5), **C**, 21.6(CI 95%;19.4-23.8), **D**, 26.3(CI 95%;24.0-28.7) and on **E**, 10.6(CI 95%;9.0-12.9) . The prevalence of partial seizures was 14.0(CI 95%;12.2-15.7). The prevalence of cryptogenic seizure was 10.4(CI 95%;8.9-11.9).

**Conclusion:** The prevalence lifetime and active epilepsy was high; similar to some developing countries, such as the ones of Latin America. The prevalence of epilepsy in childhood was low; while in the elderly was high, similar to developed countries. The lifetime prevalence was greatly associated with the economic status classes. These results showed that the prevalence of epilepsy in São José do Rio Preto has characteristics of developed and developing countries.

**KEY WORDS:** epilepsy, epidemiology, prevalence, Latin America.

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\*\*Address: Rua Nair dos Santos Lima 110, 15090-290 São José do Rio Preto SP, Brasil E-mail: moacirab@hotmail.com; moacirb@westnet.com.br

DEVELOPMENT OF TARGET CENTERED ARC APPARATUS FOR NEUROSURGICAL STEREOTACTIC PROCEDURES (ABSTRACT)\*. **THESIS. RIO DE JANEIRO, 2002.**

CESAR FANTEZIA ANDRAUS\*\*

The neurosurgical stereotactic procedures presents prominence in modern neurosurgery, for its accuracy and minimally invasive character. Stereotactic localization is essential to perform with precision intracranial biopsies, guided craniotomies, nervous tissues ablation for movement disorders and pain treatment, catheteres and endoscope placement, and like a guide for radiosurgery. The target centered arc apparatus (isocentric) for neurosurgical stereotactic procedures have been

the most used for the two last decades in the whole world.

The objectives of this study are: to present to technical-scientific environment the development of an apparatus for neurosurgical stereotactic procedures based on target centered arc principle, with technology entirely national; to diffuse the stereotactic technic in neurosurgical environment, demystifying this neurosurgical technic, for its easy handling, without ne-