149 - STUDY OF NUMBER OF EPILEPSY CASES IN CITY SCHOOLS OF THE SOUTH AREA OF MANAUS

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INTRODUCTION

Epilepsy is usually known as a condition that made up of "a group of diseases that have in common seizures that happen without any fever, metabolic or toxic desease", and these seizures are caused by an abnormal and excessive discharge in the brain cells, the seizures can happen in a part of the brain (focal seizures) or in both hemispheres of the brain (general seizure) (Guerreiro, 1996, pg 01).

Usually, people have wrong thoughts about epilepsy. Based in prejudice, that according to Amaral (1994) "are thoughts that are not based on experience", and for not having the necessary knowledge about this syndrome, some feelings, reactions and negative attitudes take place towards the person who has epilepsy and even towards his or her family.

The fact that we work with deficient children and adults using motor activities and the fact that some of them have presented seizures that indicated epilepsy led us to the need of focusing on the study of epilepsy. As we studied many scientific literature and videos/documentaries, we found different kinds of seizures and one of them caught our attention - the absence seizure. We were bothered by the ideia that children in our schools could present this seizure in class and, because of ignorance of the teachers, these children could be seen as lazy, "the kids who never pay attention to anything" and probably their school grades could be affected. This was the motivation to make this study of the number of epilepsy cases in city schools in the South area of Manaus, divided by age and kinds of epileptic syndromes.

Terminology aspects

Gomes (2001) Epilepsy can be defined as a neurologic condition, result of an abnormal and excessive electrical discharge in a group of neuronies in the brain.

According to Barner apud Borges (2002) these seizures are abnormal sudden phenomena, caused by excessive electrical discharge in a group of neuronies or even of a whole brain hemisphere. The epileptic seizure is one of the manifestations of epilepsy, the main one at times (PAIMINI apud BORGES,2002).

Types

According to ABE (Brazillian Epilepsy Association) the epileptic seizures are divided in *partial*, when it happens in a specific part of the brain and *general*, when it affects the whole brain.

Simple Partial Seizures: Patient remains conscious during the seizure. The most frequent are motor seizures, that can cause lack of control in the muscles of the hands, feet and face; these seizures can take over a whole side of the body.

Complex Partial Seizures: They may start with a *warning* or *aura*. The warning can be a sensation of a dream, fear, pressure on the stomach that goes up to the throat, alucinations, hearing strange noises (feel smells and strange tastes) and other sensations that patients cannot describe. Then, the patient loses contact with the environment, the salivation increases, the patient presents chewing, walking and hand movements. After the seizure the person gradually comes back in contact with the environment.

Tonic-Clonic Seizure: It may start with a yell, patient loses consciousness, falls to the ground, the body tightens because of muscle seizures. It takes few minutes and, after the seizure, the sleepy patient can wake up with vomit, headache and sore muscles.

Tonic Seizures: Patient loses consciousness, falls to the ground, the body tightens because of muscle seizures , iregular breathing, increase of salivation, purple skin.

Myoclonic Seizures: Short duration, and it happens specially in the waking, with sudden moves of all body (like a shock), mainly of the arms.

Atonic Seizures: It starts with the patient falling to the ground. There are usually wounds on the head.

Absence Seizures: The child stops talking and activity, coming back to it after a few seconds. These seizures can happen many times a day, leading to a low performance at school.

It's important to consider the difference between active and inactive epilepsy. There are studies in which authors consider active epilepsy when no seizures has occured in two years. Others consider the period of four years. However, the present tendency is to consider five years. (BORGES,2002).

Pedagogical Aspects

The majority of teachers may find children with epilepsy among their students, and knowing about this syndrome is very important for a adequate pedagogical/social action. The knowledge of the existing seizures will support na adequate explanation to the other students, that will possibly develop a positive attitude in this situation.

To Azevedo (2001), the reality of education of people with epilepsy is of many missed oportunities, lack of Access and bad performance, and this same author affirms that studies with children with epilepsy show that they have a negative aspect in their school life, which may cause cognitive problems and decreasing on the possibility of reaching college or even finishing college.

There are programs related to people with epilepsy, for instance, the Liga Chilena la Epilepsia (LICHE) that developed this kind of program to try to fight this pedagogical difficulties. One of thses existing programs is a pre-university course, that have and main objective to improve the low possibility of people with epilepsy reaching college.

Social Aspects

Epilepsy during childhood is a frustating experience to the family, because it influences the behavior of the person and his or her social relations. The behavior of the family is usually influenced by ignorant people, with no true information and who don't have any knowlegde about the methods involved in the treatment. (FERNANDES,1998).

According to Hanoch et al (2001) researches about non-pathologic factors show the negative aspects during the life of a person with epilepsy, including low quality of life and de decreasing of the psycho-social well being. Among the aspects related to epilepsy are psychotic symptoms, agressive behavior, violence, suicide, sexual disfunction and a long list of desorders such as depression, anxiety and low self esteem. As suggested above, the roots of the psycho-social adaptation problems can be classified in four main categories: a) anxiety and the preoccupation with the lack of control associated to epilepsy. b) the continuous prejudice against epilepsy. c) emotional stress caused by some daily factors related to the desorder. d) health problems linked to the denial of the desorder.

According to the same author, for some people epilepsy still is uncontrollable and refers to a Mattews and Barabas study

with children with epilepsy when they proved the lack of control in some areas of their lives, including interpersonal relationship and school life.

Number of Cases

There are noticeable differences between number of cases in developed countries and country in development. It's estimated that epilepsy affects around 0,5% of world population. In countries in development the rates reach 5%. The numbers of cases varies from 3 to 5 thousand in the industrialized world and 15 to 50 in some areas of the world in development (OMS, 1994).

Graaf's studies cited by Borges (2002) evaluated doctor reports and EEG records of a specialized service in the city of Tromso, Norway, the number of cases was 3,5/1000 hab.

Gomes et al. (1978) wrote a study in a hospital, in the 60's, matching the data of clinic reports in the city of Bogotá, Colômbia and found 19,5/1000 hab. The number os cases were bigger in the masculine gender (22,9/1000 hab) than in the feminine (15,5/1000 hab).

According to Fernandes (1998), "epilepsy is found in 15% of population under 20 years old and more than 35% will receive the diagnosis until the 80 year old.

METHODOLOGICAL APPROACH

This study had two phases: in the first phase a form was filled by the teachers in the classroom of a universe of 33 city schools with the objective of diagnose tha positive cases of epilepsy. The Placencia et al form was applied (been adapted to schools). Two situations were considered: positive test - to the forms that presented at least one affirmative answer, and the negative tests - when all the answers were negative. In the second phase the objective was to validate the diagnosis, through a neurologic consult to determine the true and false positives and negatives.

The universe of the research were 33 city schools, 21 of them were elementary schools, a total of 261 classrooms, considering na avarage of 40 students in a classroom, we had a total of 10.440 students.

Establishing of ***n***, that was the equivalent to 1000 students divided by 40 (that is the avarage in the classrooms), getting to the number of 25 teachers thta represented 1000 students, that is, minimum of 1 teacher per school.

We opted to apply the form to 02 teachers per school, in a total of 42 teachers, representing 1680 students, however on 38 interviews were made.

There was a lottery with each classroom having a number and two numbers were picked in each school.

The second phase of the Project started with the visit to the houses of the suspect students, when we explained the project and inviting them to the neurologic exam (EEG), given by a local hospital. After this exam, appointments were set with a neurologic doctor in the hospital. The list of suspects is:

Number of suspects: 65 Masculine Gender 42 Feminine Gender: 23

RESULTS AND DISCUSSION

As we started this research we wanted to determine the number of cases of epilepsy in students of the city schools of the South area of Manaus, by age and kinds of epileptic syndromes, because we believed in the possibility of existence of students with epilepsy that were not detected.

It was not possible to diagnose the number of cases of Epilepsy in these schools because of the following factors: some adresses were not found; in the ones found, the majority didn't go to the EEG exam or the consult with the neurologic doctor. Only 03 students made the EEG exam and the clinic exam, and were considered false positive.

The result of this study was only related to the first phase of the project, that is the diagnosis phase.

In this research 65 suspects were detected, equivalent to 4,65% of the total of all students (1412), we inferred that the rate of true positives would be inferior to the suspect rate. This somehow proves the literature, for instance Borges (2002) where, values between 0,9/1000 hab. and 57/1000 are accepted to the number of cases. Other authors that accept a smaller number of cases, between 1 to 10/1,000 hab. To developed countries, as well as Graaf's studies cited Borges (2002), that evaluated hospital reports and EEG records of a specialized service in the city of Tromso, Norway, the number of cases was 3,5/1000 hab.

According to Bittencourt et al, Latin America hás a number of epilepsy cases varies between 3,5 to 21/1000hab. Almeida Filho studied the population of Amaralina, district of Salvador, Bahia, and found a proportion of 1,0/1000 hab.

From 65 suspects, 42 were from the masculine gender (3,0%) and 23 from the feminine gender (1,6 %). These data are only suspects. We can link Fernandes' studies (1998), when he affirms that epilepsy is found in 1% of population under 20 years old. Gomes et al presents a number of cases in the masculine gender of 22,9/1000 hab. And in the feminine gender of 15,5/1000 hab. Zuloaga et al in one of his studies found a bigger number in men than in women.

Hanoch et al (2001) presents as psycho-social problems to the family as well as to the person with epilepsy the anxiety and preoccupation with the lack of control associated to epilepsy, the prejudice against epilepsy, emotional stress caused by some daily factors related to the desorder and health problems linked to the denial of the desorder. This content detected by Hanoch was noticed during our research, in the moment of our scheduling the exam and consult, through the behavior presented by parents and senteces like: *my son doesn't have this / I don't know what these teachers are thinking, just because he is a quiet boy and doesn't like to talk to anyone.* These were some of the students who didn't go to the exams.

Using the forms given to the teachers we observed that some of them referred to the suspects as: "failing student, not attencious, with difficulties of learning", In a study made by Meador (2001) he affirms that patients with epilepsy frequently suffer of cognitive problems due to a big variety of factors and that epilepsy was seen as a degenerative brain disease because of the seizures.

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STUDY OF NUMBER OF EPILEPSY CASES IN CITY SCHOOL STUDENTS OF THE SOUTH AREA OF MANAUS

ABSTRACT

Epilepsy is usually known as a condition that made up of "a group of diseases that have in common seizures that happen without any fever, metabolic or toxic desease", and these seizures are caused by an abnormal and excessive discharge in the brain cells, the seizures can happen in a part of the brain (focal seizures) or in both hemispheres of the brain (general seizure) (Guerreiro, 1996, pg 01). This study had two phases, 1st Phase: Diagnose the positive cases applying the form of Placencia et al (adapted to schools) to teachers in the classrooms. Two situations were considered: positive test - to the forms that presented at least one affirmative answer, and the negative tests - when all the answers were negative. In the second phase the objective was to validate the diagnosis, through a neurologic consult to determine the true and false positives and negatives. In this research 65 suspects were detected, equivalent to 4,65% of the total of all students (1412), inferred that the rate of true positives would be inferior to the suspects rate, that is according to literature, as an example Borges (2002) where, values between 0,9/1000 hab. to 57/1000 to the number of cases. Other authors that accept a smaller number of cases, between 1 to 10/1,000 hab. The quest for the number of cases of epilepsy in students was motivated by the attempt of setting a light on the pedagogical part of the prejudice problem. We tried to put an end to the myth of epilepsy and the prejudice that the people who have this disease have to face in a dayly basis.

Key - Words: Epilepsy; Education

L'ÉTUDE DE PRÉVALENCE D'ÉPILEPSIE EN ÉTUDIANTS DANS UNE VILLE, D'ÉCOLE MUNICIPAL D'ENSEIGNEMENT À MANAUS.

RÉSUMÉ

L'épilepsie est generalement comprendue comme une condition cronique que envelloppe un groupe de maladie qui a en commun crises epiléptique qui se passent en faute de maladie toxique - metabolique ou fièvre, celui-lá sont causée por une anormal et excessive décharge nerveuse, les crises peuvent vennir dans une partie du cerveux (crises focals), ou dans une surface qui comprend tout les deux hémisphères du cerveux (crises generalisée). Cet travail se constitue en deux phases : premiére phase: diagnostiquer le cas positive a travers de l'aplication du questionaire de recherche de « placencia et al »(adapté pour l'école) aux professeurs de la classe en considerant en deux situations : expérience positif - questionnaires avec une réponse affirmative, e expérience negatif - tous les réponses negatives. Deuxième phase : affirmer le diagnostique qui a été realisé pour neurologue, étant que l'objectif de cette phase était pour determiner les véritables et fauses positives et negatives. Dans le cherche a était obtenu 65 (soixante six) suspects, équivalant a 4, 64% du total des tous les élèves (1412) , inférons que la taxe des véritables positives serais inférieur da taxe des suspects, certainemment va au rapport théorique, comme exemple Borges (2002) où, valeur parmis 0,9/1000 hab. jusque'à 57/1000 pour la prévalence. Autres auteurs qui acceptent une écharpe de prévalence plus étroite, qui oscille parmis 1 a 10/1,000 hab. La recherche de prévalence d'épilepsie dans l'école sa donnée par le fait de recherchons subsides pour amener l'épilepsie de la sombre a travers du pends educationel, donc nous cherchons avec cette recherche desmystifier l'éplipsie et les préjuges que les porteurs souffrent en leur quotidienne.

Mots- Clefs : Épilepsie ; Éducation

ESTUDIO DE INCIDENCIA DE EPILEPSIA EN ESCOLARES DE LA ZONA SUR DE LA RED MUNICIPAL DE ENSEÑO DE LA CIUDAD DE MANAUS

RESUMEN

La epilepsia es comprendida, generalmente, como una condición crónica que abarca "un grupo de enfermedades que tienen, en común, crisis epilépticas que recorren en la ausencia de enfermedades de metabolismo tóxico o febril", siendo que esas crisis son causadas por una anormal y excesiva descarga en las células nerviosas. Las crisis pueden suceder en una parte del cerebro (crisis focales) o en una área que abarca todos los dos hemisferios del cerebro (crisis generalizadas) (Guerreiro, 1996, pg 01). Este trabajo consistió en dos fases, 1º Fase: Diagnosticar los casos positivos a través de la aplicación de los cuestionarios para rastrear de Placencia et al (siendo adaptados para la escuela) a los profesores de los salones, considerando dos situaciones: test positivo - para los cuestionarios que presenten por lo menos una respuesta afirmativa, y test negativo - todas las respuestas negativas. La 2º Fase: validar el diagnóstico que fue realizado por el médico especialista en cuestiones cerebrales, siendo que el objetivo de esa fase era para determinar los verdaderos y falsos positivos y negativos. En esta investigación fueron detectados 65 sospechosos, equivalente a 4,65% del total de todos los alumnos (1412), inferimos que el valor de los verdaderos positivos seria inferior al valor de los sospechosos. Eso de cierta forma va a lo de la literatura, como ejemplo Borges (2002), donde valores entre 0,9/1000 hab. hasta 57/1000 para la incidencia. Otros autores que aceptan una media de incidencia más estrecha, oscilando entre 1 a 10/1,000 hab. La busca de la incidencia de epilepsia en escolares se dio por el hecho de que buscamos bases para sacar la epilepsia de las sombras a través del enfoque educacional, pues buscamos con esa investigación poder desmitificar la epilepsia y los prejuicios que los portadores enfrentan en su cotidiano.

Palabras - Claves: Epilepsia; Educación

ESTUDO DE PREVALÊNCIA DE EPILEPSIA EM ESCOLARES DA ZONA SUL DA REDE MUNICIPAL DE ENSINO DA CIDADE DE MANAUS

RESUMO

A epilepsia é compreendida, geralmente, como uma condição crônica que abrange "um grupo de doenças que tem, em comum, crises epilépticas que recorrem na ausência de doenças tóxicos-metabólicas ou febril", sendo que essas crises são causadas por uma anormal e excessiva descarga nas células nervosas, as crises podem ocorrer em uma parte do cérebro (crises focais) ou em uma área que abrange todos os dois hemisférios do cérebro (crises generalizadas) (Guerreiro, 1996, pg 01). Este trabalho consistiu em duas fases, 1º Fase: Diagnosticar os casos positivos através da aplicação dos questionários de rastreamento de Placencia et al (sendo adaptados para escola) aos professores das salas de aula, considerando duas situações: teste positivo - para questionário que apresentarem pelo menos uma resposta afirmativa, e testes negativos - todas as respostas forem negativas. A 2º Fase: validar o diagnóstico que foi realizado por neurologista, sendo que o objetivo dessa fase era para determinar os verdadeiros e falsos positivos e negativos. Nesta pesquisa foram detectados 65 suspeitos, equivalente a 4,65% do total de todos os alunos (1412), inferimos que a taxa dos verdadeiros positivos seria inferior a taxa dos suspeitos, isso de certa forma vai ao encontro da literatura, como exemplo Borges (2002) onde, valores entre 0,9/1000 hab. até 57/1000 para a prevalência. Outros autores que aceitam uma faixa de prevalência mais estreita, oscilando entre 1 a 10/1,000 hab. A busca da prevalência de epilepsia em escolares deu-se pelo fato de buscarmos subsídios para tirar a epilepsia das sombras através do enfoque educacional, pois buscamos com essa pesquisa poder desmistificar a epilepsia e os preconceitos que os portadores enfrentam em seu cotidiano.

Palavras - Chave: Epilepsia; Educação.