

## THESES

### ANALYSIS OF THE 2-OCTYL-CYANOACRYLATE AS SELANT OF THE DURA-MATER INJURIES AND LIQUOR LEAKAGE PROPHYLAXIS. (ABSTRACT)\*. THESIS. JOÃO PESSOA, 2007.

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Cerebrospinal fluid (CSF) leakage, one of the post-operative complications of neurosurgery operations, is commonly a result of trauma. Since the principal selante of the dura-mater is biological and with elevated commercial value, we try to introduce a synthetic material, which, besides reducing costs, is an alternative method of repair and reinforcement of dural suture, and acts as treatment and prophylaxis, preventing CSF leakage.

**Objective:** To evaluate the effect of glue tissue on the healing of the dura-mater closure in rabbits. The study was undertaken to investigate the histological behavior of dural repair using standard suture techniques and suture supplemented with tissue adhesive.

**Method:** We evaluate a total of 66 animals, divided in 11 groups of 6 rabbits each. Following fronto-temporo-parietal craniectomy, 1 cm of the cranium was removed and 0.5 cm of the dura-mater was sectioned. In the control group, the dura-mater was sutured with 6-0 mononylon interrupted sutures. In the glue group, the dura-mater was sutured and either reinforced by using fibrin glue (group B) or using 2 octyl-cyanoacrylate (high viscosity) (group A). In the group D, the brains were covered by 2-octyl-cyanoacrylate (high viscosity), before closure with 6-0 mononylon suture and in the group E, different to the group A, the animals used oral antinflammatory. Rabbits were sacrificed on day 7, 30 and 60 fol-

lowing operation. Integrity of the sutures, existence of abscess, wound infection, and adhesion formation were recorded. The heads were removed including the site of operation and then, the specimens were sent for histological examination.

**Results:** Mean weights of each study group increased. The dura-mater healing process, as assessed by fibroblast activity and inflammatory cell infiltration did not differ statistically between the three groups ( $p > 0.05$ ). Only blood vessel neodevelopment increased in control group. The histopathological evaluation of the brains treated with the synthetic glue revealed 50% of inflammatory response with focal necrosis in the cortex. Only one rabbit had a normal brain.

**Conclusion:** Histologic sections obtained from dura treated with 2-octyl-cyanoacrylate polymer demonstrated minimal inflammatory response, similar to that treated with fibrin adhesive sealant. Results, under experimental conditions, indicate that this new substance, 2-octyl-cyanoacrylate, appears to have applications as an adjunctive means of effecting dural closure, but can not be considered as safe supportive material for intradural procedures directly involving the brain tissue.

**KEY WORDS:** dura-mater, cyanoacrylate polymer, fibrin adhesive sealant, histotoxicity.

\*Análise do 2-octil-cianoacrilato como selante nas lesões da dura-máter e profilaxia da fistula líquórica. (Resumo) Tese de Doutorado. Universidad e Federal da Paraíba, UFPB (Área: Farmacologia). Orientador: Isac Almeida de Medeiros. Co-orientadora: Margareth de Fátima M. Diniz

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### BRIEF ATTENTION DEFICIT/HYPERACTIVITY QUESTIONNAIRE FOR PARENTS AND TEACHERS (ABSTRACT)\*. THESIS. CURITIBA, 2006.

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Attention Deficit/Hyperactivity Disorder (ADHD) is the most common neurobiological disorder in children. There is no biological marker, either genetic, neurochemical, neurophysiological or neuroimage, capable of confirming ADHD diagnosis or identifying its etiology. Diagnosis is clinical, based on the symptoms of attention deficit, hyperactivity and impulsivity, which cause difficulties especially in the learning process and socialization. Interviews, clinical observation, and cognitive

evaluation, complemented by questionnaires and rating scales directed to various informants, mainly teachers and parents, are the basis for the diagnosis.

**Objective:** To elaborate a Brief Questionnaire (BQ) for the identification of ADHD symptoms in Grammar and Middle School children and adolescents, parents and teachers versions; to analyse the questionnaires construction accuracy and validity; to evaluate ADHD prevalence and the subtypes in the school population, according to

teachers, based on the Diagnostic and Statistical Manual for Mental Health-IV, of the American Association of Psychiatry (DSM-IV); to compare the level of agreement amongst teachers, and between teachers and parents, in the identification of children with ADHD symptoms.

**Method:** A questionnaire with questions taken from the DSM-IV and other sources was applied to the subjects' teachers, in a public school of Curitiba. ADHD prevalence and subtypes related to age, gender and type of teacher were analysed, as well as the level of agreement between teachers. The clinical sample was taken from the school sample. The children were evaluated by a medical/psychological team, and the questionnaire was applied to the parents. After comparing the DSM-IV criteria (parents and teachers/ questionnaires) with the clinical evaluation (gold standard), the BQ, versions for teachers and parents, with a minimum of questions for the attention and hyperactivity/impulsivity dimensions, was developed. The construct accuracy and validity of the teachers' version were tested on students from another public school, and of the parents' version, on a clinical sample.

**Results:** The ADHD BQ is made of seven items (three of the attention deficit dimension and four of the hyperactivity/impulsivity dimension) in the teachers' version

and of eight items (four of the attention deficit dimension and four of the hyperactivity/impulsivity dimension) in the parents' version. Prevalence according to the teachers was 12 %. The level of agreement related to the questions amongst the teachers was low in both the school and the clinical samples, as well as between teachers and parents. The BQ, compared to the DSM-IV, showed higher sensitivity in the clinical sample. The correlation and sensitivity were adequate when compared to another school and clinical sample.

**Discussion:** The ADHD BQ, versions for parents and teachers, elaborated from the Initial Questionnaire based on the DSM-IV, presented a discriminative capacity similar to the DSM-IV. After the reliability and validity tests in a more representative population, it may be of great clinical and epidemiological usefulness. ADHD high prevalence, according to teachers, is compatible with research results. The low agreement amongst teachers, and between them and the parents, reaffirmed in this study, should alert clinicians to the need of evaluating rating scales and questionnaires from different sources with the greatest care.

**KEY WORDS:** attention-deficit/hyperactivity disorder, prevalence, DSM-IV, questionnaires, rating scales.

\* Desenvolvimento de um questionário Breve para Identificação do Transtorno de Déficit de Atenção/Hiperatividade direcionado a Pais e Professores (Resumo). Tese de Doutorado, Universidade Federal do Paraná (Área: Saúde da Criança e do Adolescente). Orientadores: Denise Siqueira Carvalho e Mônica Nunes de Lima Cat.

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#### QUALITY OF LIFE IN EPILEPTIC PATIENTS (ABSTRACT)\*. DISSERTATION. SÃO JOSÉ DO RIO PRETO/SP, 2007.

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Epilepsy is a chronic disorder that affects the quality of life, especially in its critical periods, when the disease disadvantage life's cultural, personal and social aspects as well as family relationships. This study analyzed the quality of life in epileptic patients (QV) related to different issues: social, physical and emotional, all of them correlated to the disease and individual variables: the perception of seizure control.

Patients from the outpatient's clinic of Hospital de Base and those identified in the community of São José do Rio Preto were compared. 165 patients diagnosed with epilepsy were evaluated by Quality of Life 65 Questionnaire (QQV-65). 87 female and 78 male, from the ambulatory service of Hospital de Base (N=105) and patients from the community (N=60) of São José do Rio Preto city. Their ages ranged between 18 and 75 years

old (mean=41.28; standard deviation=13.26). The study showed significant associations between age and final quality of life (p-value = 0.003) as well as education and final quality of life (p= 0.001). There was significant relation between perception and seizure control and all the aspects of QV: total range of QV (p=0.000), health (p=0.000), physical aspects (p=0.000), social aspects (p=0.003), locus of control (p=0.000), self-concept (p=0.25), emotional aspects (valor - p=0,000) and cognitive aspects (value - p=0,009).

There was no correlation between patients' origin (ambulatory or outpatients' clinic) and the final quality of life and its aspects (health, physical, cognitive, emotional, self-concept and locus of control).

**KEY WORDS:** quality of life, epilepsy, adult population study.

\*Estudo sobre qualidade de vida utilizando-se QV-65 validado na UNICAMP para avaliar duas populações de pacientes com epilepsia, sendo uma formada por pacientes com base hospitalar e outra com base populacional. Dissertação de Mestrado, Faculdade de Medicina de São José do Rio Preto, FAMERP (Área: Ciências da Saúde). Orientador Moacir Alves Borges.

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