

## 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 antiinflammatory. 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