

The normality condition of data were averaged by Kolmogorov-Smirnov. Values of  $p < 0.05$  indicate statistically significant.

The results show a decrease of mean blood flow velocity of the right ( $p=0.18888$ ) and left ( $p=0.0071$ ) middle cerebral arteries, mainly on the first minute of HV, estimating a decrease of cerebral blood flow (4.12% and 6.51%, of the right and left middle cerebral arteries, respectively). Five minutes after HV, there was a return to baseline values. In relation to gasometric parameters, there were a significant variation of  $\text{EtCO}_2$  and  $\text{PaCO}_2$

during the HV, with smaller changes of  $\text{PaCO}_2$  in relation to  $\text{EtCO}_2$ . The pulsatility index, another gasometric parameters, heart rate and mean arterial pressure remained stable during HV.

Concluding, based on results of this study, that the maneuver of HV may be security applied and does not promote cerebral and systemic repercussion in studied patients.

**KEY WORDS:** hyperventilation, cerebral blood flow, transcranial Doppler.

\* Repercussão da manobra de hiperventilação breve sobre a hemodinâmica cerebral, sistêmica e alterações gasométricas em pacientes sob assistência ventilatória mecânica (Resumo). Tese de Mestrado, Universidade Federal de Sergipe, UFS (Área: Ciências da Saúde). Orientador : Carlos Umberto Pereira.

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## PHYSICAL EXERCISE INDUCES FUNCTIONAL RECOVERY AFTER SCIATIC NERVE TRAUMA IN RATS (ABSTRACT)\*. **THESIS. ARACAJU , 2006**

CARLOS MICHELL TÔRRES SANTOS \*\*

Recent studies show a probable relationship between physical training and functional recovery after a peripheral nerve lesion. Meanwhile, there is not an agreement about what kind of physical training should be elected to obtain best results.

The present research verifies influence of predominant aerobic and anaerobic physical exercises on functional recovery process on days 5, 10, 15 and 20 after rat's sciatic nerve crush, by a non-invasive method called sciatic static index. Statistical analysis was made with 0.05 significance level.

With variance analysis application it was observed an increment on functional recovery by the tests accom-

plished in days 15 and 20 after lesion to groups submitted to physical exercises. Latterly, it was employed Turkey test, which made possible to conclude that predominant aerobic and anaerobic exercises are not different on benefits offered in functional recovery process after peripheral nerve lesion.

Finally, two-way variance analysis demonstrated any influence in a significant manner the functional recovery process to analyzed groups, evidencing that physical exercises increase recuperation of nerve function.

**KEY WORDS:** sciatic trauma, physical exercise, functional recovery.

\* O exercício físico induz recuperação funcional pós-trauma do nervo ciático em ratos. (Resumo) Tese de Mestrado, Universidade Federal de Sergipe, UFS (Área: Ciências da Saúde). Orientador : Carlos Umberto Pereira,

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## ATTENTION-DEFICIT HYPERACTIVITY DISORDER SYMPTOMS AND SLEEP DISORDERS (ABSTRACT)\*. **DISSERTATION. CAMPINAS, 2006.**

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*Objective:* This study examined the relationship between Attention-Deficit Hyperactivity Disorder (ADHD) and sleep disorders to characterize clinical features and associated problems.

*Method:* In the first paper we review the researches literature about sleep disorders in children with ADHD

with and without psychostimulant treatment. In the second paper we performed a record review of 50 consecutive children and adolescents aged 4 to 17 years with ADHD who do not have mental retardation or pervasive developmental disorders.

*Results:* Infants with sleep disorders were associat-

ed with development of ADHD in later childhood. Significant relationships were found between sleep disorders and pharmacotherapy ( $p < 0.01$ ); comorbidity ( $p < 0.01$ ); and greater adherence to treatment prescribed for symptoms of ADHD ( $p < 0.05$ ).

**Conclusion:** Sleep disorders evaluation should be considered before starting drug treatment for ADHD because diagnostic criteria for ADHD based on DSM-IV or

ICD-10 do not differentiate between children with and without sleep disorders. Assessment for sleep disorders may provide a new treatment opportunity for some ADHD children. Future research is needed to clarify the relationship between sleep disorders and ADHD; as well as the effects of stimulants on sleep in ADHD childr

**KEY WORDS:** Attention-Deficit Hyperactivity Disorder, sleep disorders, sleep, child, adolescent.

\**Transtorno do Déficit de Atenção e Hiperatividade: características clínicas e alterações do sono (Resumo).* Dissertação de Mestrado, Universidade Estadual de Campinas (Área: Saúde da Criança e do Adolescente). Orientador: Rubens Reimão.

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## CLINICAL ASPECTS OF PATIENTS WITH SPINAL CORD INJURY IN PUBLIC AND PRIVATE HOSPITALS IN SÃO LUÍS, MARANHÃO (ABSTRACT)\*. DISSERTATION. SÃO LUÍS, 2006.

OSMIR DE CÁSSIA SAMPAIO\*\*

**Introduction:** Traumatic Spinal Cord Injury (SCI) is one of the important causes of the morbidity and mortality. In Maranhão, there are no records of epidemiological study regarding frequency and profiles of SCI patients.

**Objective:** To supply data about the clinical characteristics of SCI in Maranhão.

**Method:** A prospective study was conducted on 59 SCI patients that were hospitalized in 3 public establishments and a private one in São Luís-MA, between the months of April/2003 and March/2004. All patients were object of neurological evaluation (inspection, touchstone of the cervical-dorsal-lombar region), sensibility tests (touch, thermal, painful, and vibrating), and were registered in a specific record. Regarding the test to evaluate the importance of the damage, the ASIA table (Frankel) was used. 34 SCI patients from the countryside and from the capital of Maranhão were analyzed. The studies of 3 patients were excluded because families chose to treat their patients in establishments where this study was not conducted, and a patient was transferred to be treated at home. The qui-square ( $\chi^2$ ) test was applied, and the contingency table and level of reaction to the hypothesis of nullity was established in 5%. ( $p < 0.05$ ).

**Results:** During this study, it was noticed that the majority of the patients were from the countryside of Maranhão (58.3%), were mainly men (77.9% were men, whereas 22.1% were women). Most of the patients were between the ages of 13-30 (54.2%), specially between the ages of 13-20 (23.7%). Considering the occupation of the patients, it was noticed that the majority was composed of plantation workers. The most common

causes of SCI were: fall (47.4%), and automobilist accident (28.11%). The majority of the patients were married (64.4% were married, whereas 33.9% were single). The segment of the backbone that was damaged were, respectively, the dorsal (41.47%), and cervical (40%). Considering the length of time between the accident and the diagnosis, it was, in average, 9-24 h. There were found 51.7% of incomplete damages, whereas 48.3% of the damages were complete. 86.4% of the patients went through surgery, and 66% of those were object of XR, CT and MRI. Some complications were noticed, such as post-surgery problems (81%). There was also the occurrence of urine infection (31%), and skin/urine infection (43.2%). Concerning the distribution in relation to the patients gender and degree of damage, there were found 65.2% of men with complete damage and 50% of women with normal neurological exam (Frankel E). These results were significant ( $p = 0.010$ ). This distribution of prevailing according to gender and damaged backbone segment supplied significant results in the relation of cervical and men (47.8%), and lombar and women (46.2%).

**Conclusion:** It was concluded that the traumatic spinal cord injury patients in the State of Maranhão, are men, married, victims of fall, that were diagnosed 9-24 hours after the accident. The dorsal segment presented most of the damages, specially Frankel A. In the surgery treatment the access way was, mainly, the posterior one. Urine infection present most of the cases of complications.

**KEY WORDS:** spinal cord injury, trauma, epidemiology, prevention.

\**Aspectos clínicos do traumatizado raquimedular atendidos em hospitais públicos e privados em São Luís - Maranhão (Resumo).* Dissertação de Mestrado, Universidade Federal do Maranhão (Área: Ciências da Saúde). Orientador: Orlando Jorge Martins Torres.

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