

in the Brazilian ones (0.90%) ( $p < 0.01$ ); in the cases deaths (1.00%) ( $p < 0.01$ ) and injured accidents (5.00%) ( $p < 0.01$ ) was referred only by the Portuguese drivers. The Portuguese drivers showed better QL scores regarding mental health ( $p < 0.01$ ) and pain ( $p < 0.01$ ). The Brazilians showed better scores of physical ( $p < 0.01$ ), vitality ( $p = 0.02$ ) and social function ( $p < 0.01$ ). There was no significant difference between physical function, general health and the emotional aspects. There was high prevalence of sleep disorders, EDS, alcohol and stimulant drugs use, and the accidents index in the road truck drivers in both countries. These

points out to urgent need of primary prevention programs and to improve regulatory authorities. Transport companies and truck drivers should carefully follow the present traffic legislation regarding the limits of work hours driving, the time schedules and the shift work, as a high number of truck drivers with shift work and long working driving hours without the due rest were detected. Further comparative studies should be addressed between these two countries for their population health and QL improvement.

**KEY WORDS:** sleep, sleep disorders, traffic accident, quality of life.

\*Sono, hábitos, qualidade de vida e acidentes em camionistas do Brasil e de Portugal. (Resumo). Tese de Pós-Doutorado, Universidade de Lisboa, Portugal (Área: Medicina). Orientadora: Teresa Paiva. Colaborador: Rubens Reimão.

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# MONOSYNAPTIC CONNECTION BETWEEN COCHLEAR ROOT NEURONS OF THE VESTIBULOCOCHLEAR NERVE AND AURICULAR MOTONEURONS OF THE FACIAL MOTOR NUCLEUS (ABSTRACT)\*. **THESIS. SÃO PAULO, 2004.**

*JOSÉ DE ANCHIETA DE CASTRO E HORTA JR\*\**

Cochlear root neurons of the vestibulocochlear nerve (CRN) are involved in the acoustic startle reflex, which possesses a short-latency auricular component and is of great importance in the escape and survival of rodents. However, the pathway of the auricular component is not well understood.

To demonstrate a direct connection between CRN and auricular motoneurons in the rat, double-labeling experiment was performed using as neuronal tracers biotinylated dextran (anterograde) injected into the cochlear root and Fluoro-Gold® (retrograde) injected into the muscle levator auris longus. In addition, Fluoro-Gold® was injected into the medial sub-

nucleus of the facial motor nucleus. At the structural level, overlappings between auricular motoneurons and axon terminals of the CRN were observed, which were confirmed at the ultrastructural level as asymmetric synapses containing round, small and electron-lucent vesicles.

The direct connection between CRN and auricular motoneurons might represent the anatomical substrate of the fast auricular reflex after intense acoustic stimulation.

**KEY WORDS:** facial motor nucleus, cochlear root neurons, acoustic startle reflex; neuronal tracers, PINNA reflex, motoneurons

\*Conexão monossináptica entre os neurônios da raiz coclear do nervo vestibulo-coclear e os motoneurônios auriculares do núcleo motor do nervo facial (Resumo). Tese de Doutorado, Universidade de São Paulo (Área: Anatomia). Orientador: Jackson Cioni Bittencourt; co-orientador: María Dolores Estilista López García. Financial Support: Ministerio de Ciencia y Tecnología - España (BFI2000-1358); F.S.E. (SA084/01) - España; FAPESP 00/06966-4 and FAPESP 01/13068-5

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# INHIBITION OF PERIDURAL FIBROSIS AFTER LAMINECTOMY USING BIOLOGICAL SHEET IN RAT MODEL (ABSTRACT)\*. **THESIS. SÃO PAULO, 2003.**

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**Objective:** To investigate the use of a biological membrane composed by a decalcified bovine cortical osseous, in surgeries of spinal column in rats, to treat the osseous defect, minimizing or blocking the muscular tissue herniation into the rachidian chan-

nel, reducing the fibrous tissue formed at post-operative period and yet to evaluate the material biocompatibility.

**Method:** The biological decalcified bovine cortical osseous - which has wide utility in odontology to

cover dental implants or as a biological obstacle to be used in Buccomaxillary Orthopedics and Traumatology, Esthetic and Repairer Plastic Surgery, Facial Surgery and Oncology – was used in lumbar and thoracic laminectomies, performed in Wistar-EPM rats, which were sacrificed after eight, sixteen and twenty-four weeks and then the surgical samples were removed to be submitted to histopathological study.

**Results:** The results obtained from the microscopic analysis of the material submitted to hematoxylin-eosin in the three groups above were separated according to the sacrifice time and presence or absence of implant and both presented similar aspect, with-

out significant statistical differences, but with some percentages showing significant differences, which suggests a behaviour difference among the groups in respect to the presence or absence of tissue reconstitution.

**Conclusion:** The biological lyophilized membrane of bovine cortical osseous avoided the muscular tissue herniation into the rachidian channel and was totally reabsorbed in all analysed samples which proves its biocompatibility and favouring the osseous neoformation and avoiding adhesences.

**KEY WORDS:** laminectomy, fibrosis, bovine osteal cortex, biological membrane.

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## THE MOTOR DEVELOPMENT IN PRETERM INFANTS DURING THE FIRST SIX MONTHS OF CORRECTED AGE ACCORDING TO ALBERTA INFANT MOTOR SCALE: A COHORT STUDY (ABSTRACT)\*. **DISSERTATION. SÃO PAULO, 2004.**

ANA PAULA RESTIFFE\*\*

There is no consensus whether the neuromotor development in preterm infants with low risk for neurological sequelae is similar, delayed or accelerated, when compared with term infants.

The purposes of this survey are: to study the gross motor development (GMD) in preterm infants (PT), with low-risk for neurological problems during the first six months of corrected age, using the scores and the analysis of 4 postures (prone, supine, sitting, standing) from the assessment tool of the Alberta Infant Motor Scale (AIMS), according to chronological and corrected age for the degree of prematurity; and to verify the need of either correcting or not the chronological age in PT, during this period.

This observational and cohort study assessed 43 PT born in the Nursery Annexed to the Maternity, in Clinics Hospital Medicine School of São Paulo University, monthly, from their first return after hospital discharge to 6 months of corrected age, through video-taped assessments of the 4 postures, during the maximum period of 50 minutes. The results of mean scores, considering corrected and chronological age were comparatively analyzed with AIMS, by adjusting non-linear regression models and by calculating

the 95% confidence interval (CI) in each period. If there is no overlapping of CI, the level of significance was considered statistically significant ( $p=0.05$ ).

The results suggest that by using the chronological age with PT, regardless of the degree of prematurity, their GMD is considered to be delayed in comparison with AIMS. However, by correcting the chronological age, the GMD has become equivalent to AIMS. The greater is the degree of prematurity, the more under-estimated is the chronological-aged scores. The prone was the posture which more items had been delayed in comparison with AIMS; the standing, more advanced items; and supine and sitting, with more variability, as far as the period of acquisition compared with AIMS is concerned.

Concluding, the results suggest that, even though the pre-terms' GMD is not delayed in comparisons with the term infants', when the corrected age is considered, their development has shown a distinct temporal, motor and strategical variability from the term infants'.

**KEY WORDS:** newborn, premature infant, motor activity, cohort study.

\* O desenvolvimento motor dos recém-nascidos pré-termos nos primeiros seis meses de idade corrigida segundo Alberta Infant Motor Scale: um estudo de coorte (Resumo). Dissertação de Mestrado, Universidade de São Paulo. Orientador: José Luiz Dias Gherpelli.

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