

compared with time 0h and 72h in the control group. All intensities (1, 2.2, 3, 9, 15, and 21 J/cm²) promoted cellular proliferation after 72 hours, while 15J/cm² presented an accentuated increase compared to groups L1, L2.2, and L3.

Conclusion: PBM enhanced cellular proliferation while causing a reduced nuclear increase in glioblastoma cells.

Implications: In this study, we found that the laser decreased the cellular senescence state from the evaluation of the morphological parameters, thus increasing cell proliferation and decreasing the nuclear area; therefore, it is an important therapeutic tool against the cellular aging process.

Keywords: Parkinson's, Physiotherapy, Treatment of diabetes mellitus

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: To professors Dr. Josie Budag Matsuda, Dr. Ana Inês Gonzales, and Dr. Luis Otavio Matsuda, for the shared knowledge, Fisioterapia-UNIDAVI, for the financial and structural contribution.

Ethics committee approval: University for the development of Alto Vale do Itajaí - Unidavi, according to CAAE opinion number: 63508622.0.0000.5676.

<https://doi.org/10.1016/j.bjpt.2024.100689>

93

WORK ABILITY PREDICTS OCCUPATIONAL HEALTH-RELATED ABSENTEEISM IN PROFESSIONAL DRIVERS: A 1-YEAR LONGITUDINAL STUDY

Cynthia Mara Zilli Casagrande^{1,2}, Arthur de Sá Ferreira²

¹ Faculdade Inspirar, Curitiba, Paraná, Brazil

² Postgraduate Program in Rehabilitation Sciences, Augusto Motta University Center (UNISUAM), Rio de Janeiro, Rio de Janeiro, Brazil

Background: Work ability (WA) is considered the result of the interaction of personal, social, and other factors related to the work environment. To what extent WA can predict absenteeism at work due to occupational health in professional drivers remains poorly investigated.

Objectives: To analyze the association between work ability and occupational health-related absenteeism at work in professional drivers.

Methods: From 2020 to 2021, 449 professional drivers were assessed for sociodemographic information, lifestyle (Baecke questionnaire, Work Stress Scale), and work ability (Work Ability Index, WAI) in Curitiba, Paraná (Brazil). Follow-up assessments were conducted at 6 and 12 months by telephone to answer 3 questions that aimed at information about professional performance, situations of occupational absenteeism, and accidents at work.

Results: After 12 months of the initial interview, 270/449 drivers (60%) remained as research participants and the others did not remain active in the profession (n=29/449, 7%) or did not respond to telephone contact (n= 53/449, 12%). WAI was inversely associated ($\beta=-0.119$ CI 95% -0.233 to -0.006, $P=0.039$) with general absenteeism at 12 months, explaining better WAI variability and showing a better fit of the latter model (AIC=137, $R^2=0.028$, $P=0.074$ vs. $R^2=0.050$, AIC=92, $P=0.039$). Separating the reasons for absenteeism between occupational health and accidents at work, we concluded that WAI was inversely associated with absenteeism due to occupational health at 6 months ($\beta=-0.096$ CI95% -0.187 to -0.006, $P=0.037$) and accidents at work at 12 months ($\beta=-0.189$ 95% CI -0.331 to -0.047, $P=0.009$).

Conclusion: Work ability can predict 1-year absenteeism due to occupational health in professional drivers.

Implications: Absenteeism due to occupational health can be detected using current work ability information in professional drivers. Further studies are required to test whether ergonomic interventions can promote occupational health and decrease absenteeism in this population.

Keywords: Professional drivers, Ability to work, Occupational health

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: We are thankful to UNISUAM and Faculdade Inspirar for the Interinstitutional Doctoral class and agencies CNPq, CAPES, and FAPERJ for funding our research.

Ethics committee approval: 33684020.7.0000.5221.

<https://doi.org/10.1016/j.bjpt.2024.100690>

94

CARACTERIZATION OF MANUAL PREFERENCE IN CORPUS CALLOSUM DYSGENESIS

Danielle Agostinho¹, Myriam Monteiro², Bruna Barreto¹,

Fabio dos Anjos¹, Fernanda Tovar-Moll²

¹ Centro Universitário Augusto Motta (UNISUAM), Rio de Janeiro, Rio de Janeiro, Brasil

² Instituto D'Or de Pesquisa e Ensino (IDOR), Rio de Janeiro, Rio de Janeiro, Brasil

Background: Corpus callosum dysgenesis (CCD) is a neurodevelopmental malformation characterized by the total or partial absence or hypoplasia of the corpus callosum (CC); the structure responsible for connecting both cerebral hemispheres. CCD is associated with cognitive, social, visual, auditory, motor, somatosensory and language alterations. Considering that CC seems to play an important role in the establishment of cerebral asymmetries, whether DCC patients have an indeterminate or strong handedness is an open question we addressed here.

Objectives: This study aimed at investigating the influence of CCD on manual preference.

Methods: An observational study with nine DCC patients were recruited from the Instituto D'Or de Pesquisa e Ensino (Rio de Janeiro, Brazil). The Edinburgh Handedness Inventory was used to assess manual preference. The inventory has 10 items: writing, drawing, throwing, scissors, toothbrush, knife, spoon, broom, match and open a box. The laterality quotient (LQ) was applied as follows: $LQ = [(R-L) / (R+L) \times 100]$, ranging from -100 (strong left-handedness) to +100 (strong right-handedness). The statistical analysis involves data description by means of number (%) of occurrences or mean ($\pm$ standard deviation).

Results: Regarding the clinical characteristics of the sample, two types of CCD were identified: Total Agenesis (N = 6, 66.3%) and CC Hypoplasia (N = 3, 33%). Furthermore, the results showed that the type of CDD was isolated (Total Agenesis: N = 4, 44.4%; CC Hypoplasia: N = 2, 22.2%) or associated with other nervous system conditions (Total Agenesis: N = 1, 11.1%; CC Hypoplasia: N = 1, 11.1%). For manual preference, all subjects obtained the maximum score of the assessment instrument (strong left-handedness: N = 3, 33.3%; strong right-handedness: N = 6, 66.6%).

Conclusion: These results indicate that patients have a strong manual preference, regardless of the type of CDD and associations with nervous system conditions.

Implications: These findings can advance knowledge in the clinical condition of CCD and, consequently, influence the treatment and further research.

Keywords: Manual preference, Corpus Callosum, Dysgenesis of the corpus callosum