ABSTRACT

Effects of frequency and intensity of neurodevelopmental treatment interventions in children with cerebral palsy. A systematic review

Introduction: Cerebral palsy (CP) is a health condition causing very different levels of function limitation in children. Neurodevelopmental treatment is used with different frequencies and intensities, however there is no consensus regarding optimal dose. Objective: To perform a systematic assessment of the effectiveness of different intensities and/or frequencies of neurodevelopmental intervention in gross motor function, spasticity and range of joint motion, in children diagnosed with cerebral palsy. Materials and Methods: The systematic review was carried out following Cochrane Collaboration recommendations. Randomized and quasi-randomized clinical studies were considered, including > 14 year-old CP diagnosed children as subjects, classified using GMFCS I-V. The search was run in the following databases: PubMed, PEDro, CENTRAL, CINAHL Plus, EMBASE, OpenGrey, LILACS and SciELO. Two independent researchers were responsible for the selection of the studies. Disagreements were resolved by means of a consensus. A descriptive analysis was carried out on the selected studies. The Cochrane Collaboration’s tool for assessing risk of bias was used. Results: Only two of the 484 studies met all eligibility criteria. None of the selected studies showed significant differences between the high intensity or high frequency groups compared to the control groups. Conclusions: There is not enough evidence to conclude if a type of therapeutic frequency or intensity will determine the therapeutic results of neurodevelopmental treatment that are expected in children with CP.

Key words: Cerebral palsy, neurodevelopmental treatment, intensity, frequency.