

Pilates improves lower limbs strength and postural control during quite standing in a child with hemiparetic cerebral palsy: A case report study

Posted online on September 2, 2014. (doi:10.3109/17518423.2014.947040)

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Abstract

Objective: To verify the effect of Pilates exercises in a child with cerebral palsy (CP) with mild functional impairment. **Methods:** We evaluated average peak torque of ankle and knee extensors/flexors using a Biodex System, using concentric active-assisted test. We also evaluated amplitude of anterior–posterior and of medial–lateral displacement of the CoP and area of oscillation during quite standing with a BERTEC platform. We applied Pilates exercises for eight weeks. **Results:** Peak torque/body weight of ankle and knee extensors/flexors of both affected and unaffected limbs increased after Pilates. Also, all kinetic variables decreased after Pilates' intervention. After one-month follow-up, isokinetic variable values were higher while kinetic variable values were lower than baseline values. **Conclusion:** Pilates may be an important rehabilitation technique for children with CP that present mild deficits in motor structures and high functional level, especially when the aims are to improve muscle strength and postural control during quite standing.