Cerebral palsy is the most common childhood physical disability resulting in motor impairments. Aquatic therapy or aquatic exercise programs are effective in the management of cerebral palsy. Evidence suggests that aquatic therapy or aquatic exercises as an intervention for children with cerebral palsy (CP) and adolescents with CP can be maintained with continued aquatic therapy. This allows children to be active in their own environment and to develop appropriate skills in aquatic therapy group. No significant changes for either group at long-term follow up.

Methods

• A literature search was performed in 3 electronic databases: PubMed, CINAHL, Academic Search Complete.
• The following search terms were used: "cerebral palsy," "children with disabilities," "aquatics," "rehabilitation," and "physical therapy."

Results

Study | Design | Participants | Intervention | Outcome Measures | Results | Follow-Up
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Alder et al. (2007) | Cohort study | 21 children with spastic CP | Age 9.2 ± 1.94 years | Twelve weeks of aquatic exercise, frequency of sessions per week | Improvements in motor and social function, balance, and delayed postural reactions and motor development | No difference at 3-week follow-up

References

Getz et al. (2007) | Experimental | 24 children with spastic CP | Age 12.5 ± 2.7 years | Aromatase inhibitors, intensity of 60 minutes x 3 times/week | Positive effects on physical and psychosocial well-being and anxiety | No difference between groups at 6-month follow-up

Discussion & Conclusions

• Efficacy of aquatic therapy or exercise programs for children with CP suggests that aquatic therapy is beneficial for improving gross motor function, gait parameters, and social function. Further research is needed to determine the long-term effects of aquatic therapy on children with CP.

Bibliography


Lai et al. (2014) | Experimental | 24 pupils | Experimental group (n=23) and control group (n=19) | Twelve weeks of aquatic exercise, frequency of sessions per week | Significant improvements in overall health, and delayed postural reactions and motor development | No difference between groups at 6-month follow-up

Maris et al. (2003) | Cohort study | 24 children | Age 12.5 ± 2.7 years | Twelve weeks of aquatic exercise, frequency of sessions per week | Positive effects on physical and psychosocial well-being | No difference between groups at 3-month follow-up

Pegnolati (1994) | Case report | 14-year-old female with spastic CP | Aquatic therapy | Delayed postural reactions and motor development | Positive effects on physical, social, and psychosocial function | No difference between groups at 6-month follow-up

Razuk et al. (2000) | Case report | 5-year-old girl with CP | Aquatic therapy | Physical function, social function, and motor development | Positive effects on physical and psychosocial well-being | No difference between groups at 6-month follow-up