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**題目 (Title):**

馬術治療對於神經疾患兒童在行走時軀幹、骨盆、與髖關節動作的影響  
(Hippotherapy Effects on Trunk, Pelvic, and Hip Motion During Ambulation in Children With Neurological Impairments)

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**目的 (Purpose):**

本研究探討 10 週的馬術治療對於步態站立期間軀幹、骨盆、與髖關節姿勢的影響。

(This study investigated the effects of a 10-week hippotherapy program on trunk, pelvis, and hip joint positioning during the stance phase of gait.)

**方法 (Methods):**

受試者包括 11 位罹患神經疾病且行走功能缺損的兒童(6 男 5 女；7.9±2.7 歲)，於介入前後以三維電腦化步態分析收集其關節活動度的資料，再使用配對 t 檢定分別檢查各關節的運動學資料。

(Eleven children (6 boys and 5 girls; 7.9 ± 2.7 years) with neurological disorders and impaired ambulation participated. Joint range of motion data were collected via 3-dimensional computerized gait analysis before and after the program. Paired t tests were performed on kinematic data for each joint.)

### **結果 (Results):**

結果發現在觸地期與離地期時髖關節在矢狀面的姿勢有顯著且具大效應值的改善。骨盆與軀幹姿勢雖無顯著改變，但骨盆在矢狀面的姿勢呈現大效應值的改善趨勢。許多軀幹變項呈現中度效應值的趨勢，兒童傾向站立姿勢更挺直。

(Significant improvements ( $P \leq .008$ ) and large effect sizes (ESs) for sagittal plane hip positions at initial contact and toe-off were found. No differences in pelvic or trunk positioning were determined, although sagittal plane pelvic positioning displayed a trend toward improvement with large ESs. Several trunk variables displayed moderate ESs with a trend toward more upright positioning.)

### **結論 (Conclusions):**

骨盆與髖關節姿勢的改善以及更正常化的軀幹直立姿勢可能顯示出 10 次馬術治療後行走時的姿勢控制的進步。

(Improvements in pelvic and hip joint positioning and more normalized vertical trunk position may indicate increased postural control during gait after 10 sessions of hippotherapy.)