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**題目 (Title):**

腦性麻痺兒童的伸展及漸進式阻力運動：隨機對照試驗

Stretching and Progressive Resistance Exercise in Children With Cerebral Palsy: A Randomized Controlled Trial.

**摘要中文翻譯****目的：**

評估伸展及漸進式阻力運動訓練對於腦性麻痺兒童的關節活動度及肌力的效果。

**方法：**

共 37 位粗大動作功能分類系統(Gross Motor Function Classification System)等級 1 至 3 的雙側痙攣型腦性麻痺兒童，隨機分配至介入組與對照組。介入為伸展脛旁肌群並加上漸進式阻力運動，針對下肢進行 16 週介入訓練，再緊接著 16 週的維持計畫。在第 0、16、32 週進行被動與主動膝脛角度以及肌力的評估。

**結果：**

在 16 週的介入之後，被動與主動的膝脛角度、股四頭肌與脛旁肌群的肌力皆無顯著改善。

**結論：**

16 週伸展及漸進式阻力運動計畫接續 16 週的維持計畫無法顯著改善介入組的被動與主動膝脛角度以及肌力。

## **Original Abstract**

### **PURPOSE:**

To evaluate the effect of stretching and progressive resistance exercise on range of motion and muscle strength in children with cerebral palsy.

### **METHODS:**

Thirty-seven children with spastic bilateral cerebral palsy and Gross Motor Function Classification System levels I to III were randomized to an intervention and a comparison group. The intervention included stretching of hamstrings and progressive resistance exercise, targeting the lower extremities for 16 weeks, followed by a 16-week maintenance program. Passive and active popliteal angle and muscle strength were evaluated at 0, 16, and 32 weeks.

### **RESULTS:**

After 16 weeks nonsignificant improvements were found in passive, active popliteal angle and quadriceps and hamstrings strength.

### **CONCLUSION:**

A 16-week stretching and progressive resistance exercise program followed by a 16-week maintenance program showed nonsignificant improvements in passive, active popliteal angle and muscle strength for the intervention group.

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