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**題目 (Title):**

動力輔助滑步機介入改善一位雙邊痙攣型腦性麻痺兒童之行走與體適能

Walking and Fitness Improvements in a Child With Diplegic Cerebral Palsy Following Motor-Assisted Elliptical Intervention.

**摘要中文翻譯****目的：**

量化動力輔助滑步機（智能控制輔助復健滑步機，ICARE）訓練於一位腦性麻痺兒童之行走與體適能的效果。

**重點：**

一位12歲因雙邊痙攣型腦性麻痺(粗大動作功能分類系統第二級)而行走功能受限之男童，參與了24次強度主要為中至高等級的ICARE運動。藉由男童在每節課接受訓練時間變長、速度變快、超越機器輔助的時間變多，可看出其體適能有明顯改善。介入後，兒童走路速度變快、具較高的穩定性和耐力，並且較快就完成修正式計時站起及走測試。

**結論：**

此兒童之體適能與步態在參與中高強度的類步態運動介入後有改善。

**對臨床執業的建議：**

結合中至高強度的動力輔助滑步機訓練能同時改善腦性麻痺兒童之體適能與功能。

## **Original Abstract**

### **PURPOSE:**

To quantify effects of motor-assisted elliptical (Intelligently Controlled Assistive Rehabilitation Elliptical [ICARE]) training on walking and fitness of a child with cerebral palsy (CP).

### **KEY POINTS:**

A 12-year-old boy with walking limitations due to spastic diplegic CP (Gross Motor Function Classification System II) participated in 24 sessions of primarily moderate- to vigorous-intensity ICARE exercise. Fitness improvements were evidenced clinically across sessions by the child's capacity to train for longer periods, at faster speeds, and while overriding motor's assistance. Postintervention, the child walked faster with greater stability and endurance and more rapidly completed the modified Time Up and Go test.

### **CONCLUSION:**

The child's fitness and gait improved following engagement in a moderate- to vigorous-intensity gait-like exercise intervention.

### **RECOMMENDATIONS FOR CLINICAL PRACTICE:**

Integration of moderate- to vigorous-intensity motor-assisted elliptical training can promote simultaneous gains in fitness and function for children with CP.

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