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題目 (Title):
對腦性麻痺兒童提供經顱直流電刺激:系統性回顧
Transcranial Direct-Current Stimulation on Motor Function in Pediatric Cerebral Palsy: A Systematic Review.

摘要中文翻譯

目的：
檢測經顱直流電刺激(Transcranial Direct-Current Stimulation，tDCS)對腦性麻痺兒童動作功能的效應。

方法：
使用與tDCS相關的名詞，合併功能缺損/相關的測量搜尋六個電子資料庫。搜尋結果再利用條件篩選，包含以英文發表和腦性麻痺兒童之隨機對照試驗。使用標準流程進行資料摘錄，用PEDro量表評估品質，並進行統合分析(meta-analyses)。

結果：
在135篇文章中，9篇品質中等的研究符合納入條件。其中6篇研究被納入在7個不同的統合分析，結果只支持tDCS對於在追蹤期的靜態平衡有效益。而tDCS對動態平衡、步長及移動的效益並不成立。

結論:
統合分析的結果顯示 tDCS 可能可改善腦性麻痺兒童在追蹤期的靜態平衡，及對步行速度有正向效果；然而，研究間有異質性。在認可這個治療之前，需要近一步研究。

Original Abstract

PURPOSE:
To determine effects of transcranial direct-current stimulation (tDCS) on motor function for children with cerebral palsy.

METHODS:
Six electronic databases were searched using terms related to tDCS, combined with functional deficits/associated clinical measures. Results were filtered, including randomized controlled trials in English and children with cerebral palsy. Data were extracted using standardized procedures, and the PEDro scale was used to assess quality and meta-analyses conducted.

RESULTS:
From 135 articles, 9 studies with moderate quality met inclusion criteria. Six were included in 7 separate meta-analyses supporting a benefit of tDCS for static balance, only at follow-up. Benefits of tDCS on dynamic balance, step length, and mobility were not established.

CONCLUSIONS:
The findings from meta-analyses suggest that tDCS may provide improvements in static balance at follow-up in children with cerebral palsy and positive effects on gait velocity; however, there was heterogeneity. Further research is needed before this therapy can be endorsed.