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題目 (Title):

決定唐氏症患童的裝具需求時要測量什麼? 先驅研究
(What to Measure When Determining Orthotic Needs in Children With Down Syndrome: A Pilot Study)

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目的 (Purpose):

本研究的目的是要比較市售鞋墊以及踝上裝具對於唐氏症患童的步態之影響，並建立唐氏症患童的裝具需求之處方條件。

(To compare the effects of off-the-shelf foot orthoses and supramalleolar orthoses on the gait of children with Down syndrome (DS), and establish criteria for determining orthoses prescription for a child with DS.)

方法 (Methods):

我們使用 GAITrite 系統評估 6 位唐氏症患童(4-7 歲)的步態，並測量其身高、體重、腳長、關節活動度過高、跟骨外翻、舟狀骨下移、以及脛骨扭轉的情形。

(Methods: We assessed the gait of 6 children (aged 4–7 years) with DS using the GAITrite system, and obtained height, weight, leg length, hypermobility, calcaneal eversion, navicular drop, and tibial torsion measurements.)

結果 (Results):

穿著踝上裝具較穿著鞋墊(P = .05)與赤足行走(P = .03)有較長的步態週期，也比赤

足行走(P = .04)有較低的步頻。身高、腳長、與關節活動度過高都和步態參數有顯著的高度相關，然而生物力學測量則和步態參數無顯著相關。

(Supramalleolar orthoses lead to a longer cycle time than foot orthoses (P = .05) and barefoot walking (P = .03) and a lower cadence than barefoot walking (P = .04).

Significant strong correlations with gait parameters were obtained for height, leg length, and hypermobility. Biomechanical measurements showed no significant correlations with gait parameters.)

結論 (Conclusions):

身體檢查的角色，如人體測量與生物力學檢查對於裝具處方的重要性還需進一步的研究。

(The role of physical examination data, including anthropometric and biomechanical measurements in the prescription of orthoses requires further investigation.)