

عنوان مقاله:

Comparison Different Ankle Foot Orthotic for Drop Foot Caused by Spine injury

محل انتشار:

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خلاصه مقاله:

Neuromuscular diseases such as Cerebral Palsy, MS, stroke and spine injury could cause drop foot problem. That effect normal gait pattern and may cause insufficient clearance during swing phase. Patient with this problem use some substitute motion such as hip hiking. So they have some side effect problem because changing force and moment pattern during gait. Ankle foot orthotics (AFO) is one of desired solution that could help correcting gait pattern with limiting ankle movements. The aim of this study was comparison effects of different types of AFO in patient with drop foot because of spine injury. Five L4 and L5 injured patients were participated in this study. They walked with three different types of AFO and without any AFO. Angle and moment of ankle and knee joints were comparison with normal group in both injured and non-injured limb. Non parametric Friedman test used for statistical analysis with $p\text{-value} < 0.05$. Maximum amplitude of knee and ankle moments in injured limb was similar to normal group with using dynamic AFO. While minimum of these amplitude in both joints were not significantly different. Gait with other AFOs were not similar to normal group. Maximum knee angles were similar between all patients' situation and normal group. But maximum ankle angle were not similar with normal pattern. In conclusion dynamic AFO was more suitable for correcting L4 and L5 injured patients gait patterns.

کلمات کلیدی:

Ankle Foot Orthotics, Spine injury, kinematic and kinetic analysis

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