

Satisfaction and Effectiveness of Orthopedic Shoes in Charcot-Marie-Tooth Disease

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Abstract:

Introduction: The benefit of orthopedic shoes in Charcot-Marie-Tooth disease (CMT) is only slightly described in the literature. There is no consensus on the prescription of orthopedic shoes for CMT patients.

Aim: To compare satisfaction and efficiency of orthopedic shoes versus standard shoes among subjects with CMT.

Materials and Methods: Data collected: general characteristics of patients and orthopedic shoes. Primary endpoint: satisfaction questionnaire with 14 items (global items and more specific ones as well as quality of life) assessed using a visual analog scale. Secondary endpoints: clinical criteria (nociceptive pain, falls, sensation of instability ...). Questionnaire: Quebec User Evaluation of Satisfaction with assistive Technology (QUEST) and Monitor Orthopedic Shoes (MOS). Instrumental: quantified walk parameters (Gaitrite® System).

Results: 13 patients were analyzed. For the main questionnaire: 11 items ($p < 0.05$) are in favor of orthopedic shoes. For the secondary outcomes: we found a significant decrease in foot pain, the number of falls per month, and the sensation of instability as well as a significant improvement on Gaitrite® System and in walking speed, and an increase in the step-length and cadence.

Conclusion: This study shows the benefit of orthopedic shoes, perceived as improving quantified walk parameters, for patients with CMT.