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Plantar flexor muscle activity during assistance gait is strongly influences the difference of therapist: Assistive gait characteristics affecting ankle plantar flexor muscle activity**Naomichi Mizuta***Medical Corporation Syowakai, Japan*

In walking exercise of stroke, severe dysfunction patients depend on walking exercises by assisting therapists because independent walking is difficult. Therefore, the lower limb muscle activity during the assistance walking is greatly influenced by the therapist's skill, which may affect the training effect. The purpose of this study was to analyze the influence of therapist assistive walking characteristics on kinematics and muscle activity for one stroke patient. Affective factors for plantar flexor muscle activity in terminal stance (TSt) were examined. One sub-acute stroke with severely motor paralysis of the lower extremity was considered. It's characteristics that decrease in the lower limb extension angle (TLA: Trailing Limb Angle) in TSt. 10 healthy adults who carried out walking assistance were assisted walking with one enrollment each. We investigated gait and therapist characteristics affecting plantar flexor muscle activity in TSt. Walking characteristics among therapists did not show similar results in all items and the walking performance was different depending on therapist. Plantar flexor muscle activity was significantly correlated with TLA ($r=0.80$, $p=0.005$). On the other hand, the relationship between the therapist's characteristics and walking characteristics was not recognized. From these results, it was suggested that promoting TLA expansion in posterior assistance walking with the main objective of improving physical function is important for increasing plantar flexor muscle activity in TSt.

Biography

Naomichi Mizuta has completed his Master's degree and PhD degree from Kio University, Japan.

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