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Assessment of Foot Ankle Complex in Post-Stroke Patients: A Systematic Review

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Background: Foot ankle complex impairments are common in post-stroke patients. Alteration in foot posture, sensation, strength, range of motion are the common impairments which compromise flexibility and stability provided by the foot ankle complex. To date, no systematic review has examined all the impairments of foot ankle complex in post-stroke patients. **Objective:** The aim of this study was to examine various musculoskeletal and neurological components of assessment of foot ankle complex in post stroke patients. **Methods:** Systematic search was done in PubMed, EMBASE, Scopus, Web of Science for observational and cross-sectional studies that examined the foot ankle complex in post-stroke patients.**Results:** Seven studies published between 2000 to 2021 were included in this review. A total of 300 post-stroke patients were included in this study. Approximately 30% stroke patients suffer abnormal, asymmetric foot posture. Spasticity in plantar flexors was most common impairment in post-stroke subjects which causes reduced ankle ROM. Muscle strength of the affected side was statistically less than that of the unaffected side for both dorsiflexors and plantar flexors (dorsiflexor- 0.64; plantar flexors- 0.74; P<.002). 60% post-stroke patients recorded reduced sensation on the plantar aspect of the affected foot. **Conclusion:** The studies about the musculoskeletal as well neurological examination of foot ankle complex in post-stroke patients were limited. Some of the studies are showing contradictory results for example, some of the studies are showing supinated foot is common post-stroke whereas few others have concluded pronation is more likely. Thus, more evidences are needed about the assessment and impairments of foot ankle complex in post-stroke patients.