

INCIDENCE OF CLINICALLY DIAGNOSED UPPER EXTREMITY PAIN AND PATHOLOGY IN INDIVIDUALS WITH SPINAL CORD INJURY

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BACKGROUND AND PURPOSE: Upper extremity (UE) pain/pathology is common in individuals with spinal cord injury (SCI); however, much of the data regarding this has been collected via survey. The purpose of this study is to determine the clinically diagnosed incidence of UE pain/pathology in individuals with SCI in Olmsted County, MN.

SUBJECTS: The Rochester Epidemiology Project (REP) was used to identify a population-based cohort from Olmsted County that experienced traumatic SCI between 1997 and 2016.

METHODS AND MATERIALS: SCI diagnosis codes were used to identify potential subjects. Researchers confirmed traumatic SCI by searching the REP and medical records. Time following SCI was reviewed in the REP for included individuals to identify clinical diagnoses suggesting possible UE pain/pathology.

ANALYSES: Descriptive statistics were utilized to characterize the cohort by gender, age at time of SCI, neurological level of injury (NLI), and American Spinal Injury Association (ASIA) Impairment Scale (AIS) grade. Follow-up time available after SCI and the proportion of subjects with clinical diagnoses suggesting possible UE pain/pathology were also determined.

RESULTS: Forty-five individuals (median age: 39 years [range 18-85], 69% male) were confirmed to have traumatic SCI. SCI was classified by NLI (56% cervical, 27% thoracic, 13% lumbar, and 4% unable to determine) and AIS grade (29% A, 16% B, 16% C, 38% D, and 2% unable to determine). Median follow-up time after SCI was 5.5 years (range: 1 week-20.4 years). Based on data from the REP, 87% of the cohort had clinical diagnoses suggesting possible UE pain/pathology. Additional medical record review is ongoing to confirm the UE cases.

CONCLUSIONS: Per preliminary review, clinical diagnosis rates of UE pain/pathology appear comparable to rates previously reported on surveys (up to 70%).

IMPLICATIONS: Physical therapists can help ensure timely diagnosis and treatment of UE pain/pathology in individuals with SCI through intentional clinical evaluation.