Return to Work after Lower Extremity Trauma: An Analysis of Patient-Reported Outcomes

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INTRODUCTION:
Lower extremity traumatic injuries are associated with significant pain, limitations in function, and prolonged non-weightbearing. As a result, return to work following injury is often delayed months to years, with some patients not returning at all. It is hypothesized that patients who return to work will have higher function and quality of life in comparison to patients who don't.
METHODS:
A cross-sectional study of patients from 25 countries after traumatic injury distal to the mid-femur, including limb-salvage and amputation patients, was performed. Pre- and post-injury work status was self-reported, along with demographic, clinical, and patient-reported outcome (PRO) data. PRO data was collected with the LIMB-Q, a PRO instrument developed specifically for lower extremity trauma patients. Primary outcomes were return to work status and LIMB-Q scores. An adjusted multivariate regression controlled for age, gender, race/ethnicity, income, marital status, data collection site, and time from injury. Data was collected from 371 patients, where 59% (n=258) of patients worked at the time of injury.
RESULTS:
In patients who worked pre-injury, 67% of patients returned to work (n=173) after an average of 21 months (SD 42). On univariate analysis patients who returned to work had higher LIMB-Q scales in Function, Symptoms, Life Impact, and Psychological Well-being. On multivariate analysis, return to work was significantly associated with marital status, unilateral injuries, pre-injury work type, along with LIMB-Q Function ($p=0.033$; 95% CI[-11.3, -0.49]) and Life Impact ($p=0.008$; 95% CI[-13.5, -2.01]) scores. The need for reconstruction or amputation was not associated with return to work on either univariate or multivariate analysis ($p>0.05$).
DISCUSSION AND CONCLUSION:
Return to work after injury is a critical metric in lower extremity trauma patients. Patients who returned to work reported higher function and overall life impact scores. In addition to the economic benefit of returning to work, patients may derive improved quality of life. Prospective studies are needed to determine the causality associated with working and higher function and quality of life. Importantly, return to work was not associated with the need for soft tissue reconstruction or amputation compared to a tibial shaft fracture alone. These data suggest that the severity of lower extremity injuries may not drive return to work in this population.