"Working" for Better Outcomes: Do Unemployed Patients Have Worse Outcomes Following Tibial Plateau Fracture?

Leah Gonzalez, MD; *Abhishek Ganta, MD; Philipp Leucht, MD; Sanjit R. Konda, MD; Kenneth A. Egol, MD*
NYU Langone Orthopedic Hospital, New York, NY, United States

Purpose: While many studies have examined predictors for patient return to work following orthopedic trauma, to our knowledge, none have studied how pre-injury employment status can affect patient outcomes following orthopaedic trauma. This study seeks to compare patient outcomes after tibial plateau fracture between employed and unemployed patients to elucidate if employment status has an effect on patient recovery.

Methods: A consecutive series of 347 patients with 350 tibial plateau fractures with a known employment status treated by 1 of 3 orthopaedic traumatologists was prospectively collected at our academic medical center. Initially, patient demographics and injury characteristics were recorded. Patient outcomes were recorded at all follow-up visits. Patients were excluded if they had less than 1 year of follow-up, if they were disabled from occupation prior to the time of injury, if they were retired, or if they were receiving Workers' Compensation. Patients who reported their employment status as "full time student" were included in the employed group. Functional and patient-reported outcomes between employed and unemployed patients were compared using binary logistic regression and multiple linear regression analysis while controlling for demographic and injury characteristics using IBM SPSS.

Results: Of 350 fractures with complete follow-up and known employment status, 265 patients with 268 tibial plateau fractures met inclusion criteria. There were 33 patients (12.5%) with an employment status of "unemployed" at the time of injury. The mean follow-up time was 2.8 years for employed and 2.4 years for unemployed patients. Employed patients had lower pain scores at latest follow-up at a mean of 2.7 on the visual analog scale (VAS), while unemployed patients had a mean score of 4.5 ($P = 0.002$). Additionally, unemployed patients were more likely to report that they were tender to palpation over the surgical site (TTP) on physical examination with 24.2% of this group reporting they were TTP, while only 12.3% of the employed group reported the same ($P = 0.024$). Employed patients also had lower standardized total Short Musculoskeletal Function Assessment (SMFA) scores (mean 14.26) as well as standardized functional SMFA scores (mean 24.20) compared to their unemployed counterparts (mean 22.89, mean 32.52, respectively) ($P = 0.009$, 0.048). With regard to functional outcomes including rates of nonunion, hardware failure, and reoperation, as well as knee extension and flexion at latest follow-up, there were no differences between employed and unemployed groups.

Conclusion: Patient-reported outcomes including VAS pain score and SFMA scores are significantly better at final follow-up in patients who are employed over those who are not. However, clinically recorded functional outcomes including radiographic healing and patient range of motion are not different between these two groups. Thus, unemployed patients appear to perceive their outcomes to be worse, despite comparable clinically recorded functional outcomes.