Recovery Curve for Patients Suffering an Intertrochanteric Hip Fracture Using Patient-Reported Outcomes Show Pace of Recovery and Significant Long-Term Deficits

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Purpose: The morbidity and mortality of intertrochanteric (IT) hip fractures has been well elucidated. However, the time frame over which patients recover from IT fractures is less clear. The goal of this study was to evaluate Patient-Reported Outcomes Measurement Information System (PROMIS) physical function (PF) scores to better understand the trajectory of patient recovery following IT hip fractures.

Methods: A retrospective review of all patients suffering an IT fracture treated with either an intramedullary nail or sliding hip screw were identified by ICD-9 and -10 codes over a 5-year period. PROMIS PF scores were pulled for each patient identified. Scores were then grouped based on follow-up: immediately postoperative, 6 weeks, 3 months, 6 months, 12 months, and 24 months after surgery. Scores were averaged and 95% confidence intervals (CIs) were calculated to create a recovery curve.

Results: The patient breakdown at the predetermined time points was as follows: immediate (n = 161 patients), 6 weeks (n = 176), 3 months (n = 154), 6 months (n = 114), 1 year (n = 121), and 2 years (n = 68). The average age was 66 years (standard deviation 18.5). The average PROMIS PF immediately postoperatively was 28 (95% CI ± 1.4), 6 weeks was 31 (1.0), 3 months was 35 (1.6), 6 months was 37 (1.8), 1 year was 37 (1.8), and 2 years was 38 (2.8) (Fig. 1).

Conclusion: IT fracture patients show improvement postoperatively up to 6 months. After 6 months, there is no improvement in PF out to 2 years, with mean scores greater than one standard deviation below population norms, albeit it in a largely elderly population. This information is helpful for surgeons to provide prognostic information to patients while highlighting that most functional improvement after IT hip fracture is made in the first 6 months.

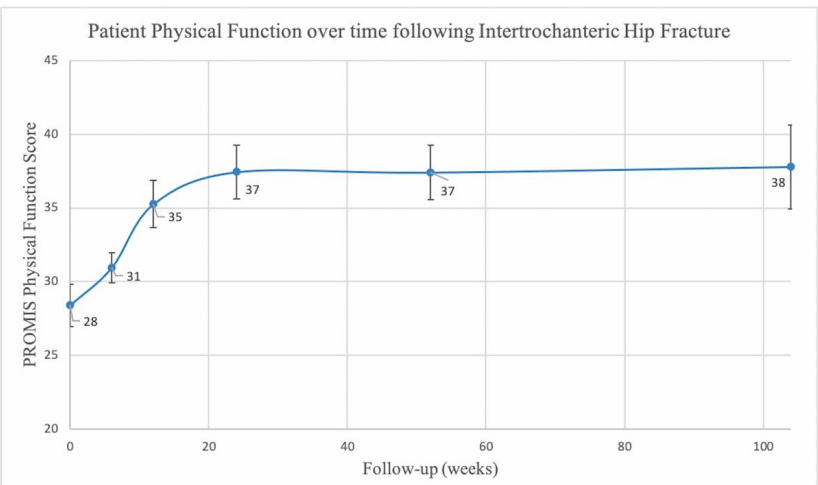

Figure 1: Recovery Curve of physical function after an IT Hip Fracture (with 95% Confidence Intervals)