Patient-Reported Outcome Measures in the Elderly: Do These Reflect Healing After Fragility Fractures of the Pelvis?

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Purpose: With an aging population and increasing rates of osteoporosis, fragility fractures of the pelvis (FFPs) have become increasingly common in adults, accounting for ~7% of all fragility fractures. This study aimed to document functional outcomes and quality of life (QoL) measures in individuals with nonoperatively treated FFPs and determine if a relationship exists between these parameters and healing status.

Methods: This was a case series of a limited cohort prospectively collected at a single institution. Of the 53 patients (age ≥65 years) who sustained a nonoperative FFP as diagnosed on radiography, follow-up imaging was only available for a subset (N = 35). Musculoskeletal Function Assessment (MFA) and 36-Item Short Form Health Survey (SF-36) scores were collected over a 2-year period to assess function and QoL. Healing status was assessed on available follow-up imaging by 4 orthopaedic surgeons and categorized as either less than 50% healed, 50%-75% healed, or >75% healed.

Results: Patient MFA scores increased from baseline for all categories except 'Fine Motor' and 'Employment', indicating worsening function. Additionally, SF-36 scores decreased from baseline with some variability in the 'Role Limitation due to Physical Problems' category, indicating deteriorating health status. Confirmation of boney healing on radiographs (>75% healed) was found for only 7 individuals. No relationship was found between any MFA or SF-36 category and healing status for patients with coincident reporting (N = 16). Despite a limited number of follow-up radiographs, this cohort highlights the limited healing that may occur in nonoperatively treated FFPs. Lack of follow-up pelvic imaging even without documented healing may occur as no current treatment exists to address the lack of boney fusion from a nonoperative perspective. Fibrous nonunion may also provide sufficient stability in these patients, allowing some individuals without union to report low MFA and high SF-36 scores.

Conclusion: Overall, function and QoL are not improving in elderly patients with nonoperatively treated FFPs from baseline levels, with many categories demonstrating a steady decline out to 24 months. Furthermore, there is no clear relationship between these measures and healing status.