



# Research Week 2020

## Post-Post Mobilization Radiographs for Stable Pelvic Ring Injuries: When is Enough, Enough?

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### Keywords

Pelvic Ring, Stable Pelvic Ring, Non-Operative, LC1, Radiograph

### Abstract

#### Purpose

Recent literature has demonstrated limited utility obtaining routine in-hospital post mobilization radiographs in LC1 pelvic ring injuries unless patients cannot mobilize (Winston, 2019). The literature does not address whether this specific cohort of conservatively treated, stability proven pelvic ring injuries require clinical films after discharge. The purpose of this study was to determine how many of these injuries displaced late and proceeded to operation. We predicted that most pelvic fractures determined to be stable from initial post-mobilization films will not end up displacing and requiring surgical fixation.

#### Methods

All patients presenting to our Level 1 academic trauma center from 2008 to 2018 were reviewed for the following criteria: pelvic fractures treated conservatively, with stable post mobilization films, and who returned to clinic with outpatient radiographs. This yielded 219 unique patients. Patient characteristics (age, comorbidities, tobacco use, BMI), Young-Burgess classification, mechanism of injury, weight-bearing status, length of follow up, number of clinic visits, and number of outpatient x-ray images were collected. The primary outcome was late operation after a trial of non-operative management.

#### Results

Zero patients received late operation for displacement after a trial of non-operative management over the past decade. The patients included 123 females and 96 males. Mean clinic follow up was 20.3 weeks (1.4 - 134.7 weeks, SD 27.6) post injury. 185 fractures (84.5%) were classified as LC1 injuries and 12 (5.4%) were classified as LC2. Patients received a mean of 6.4 radiographs (1 – 22 radiographs, SD 4.3) in outpatient follow up.

#### Conclusion

Pelvis fractures that demonstrated stability via post-mobilization radiographs likely do not require significant post-discharge radiographic follow up. The lack of late displacement suggests that we can reduce patients' radiation exposure by minimizing follow up radiography. A future pathway with fewer clinical radiographs is likely possible for stable, low acuity pelvic ring injuries.