

## POSTER 9

### OUTCOMES IN PATIENTS SUSTAINING COMPLEX PERIARTICULAR FRACTURE-DISLOCATIONS OF THE ELBOW

Jeffrey L. Milles (M1)

Gregory J. Della Rocca, MD, PhD, FACS

Brett D. Crist, MD, FACS

Linda K. Anderson, RN

(Gregory J. Della Rocca, MD, PhD, FACS)  
Department of Orthopaedic Surgery

**Purpose:** Periarticular fracture-dislocations (dislocations associated with one or more fractures) of the elbow are difficult injuries to treat. They have historically been associated with poor treatment strategies which resulted in abysmal outcomes for patients. We aimed to review our management strategies for these complex injuries and patient outcomes.

**Methods:** After institutional review board approval, we reviewed all patients aged 16 years of age or greater that presented to MU hospital between 9/1/2005 and 5/31/2010 with a diagnosis of “terrible triad”, transolecranon fracture-dislocation, or Monteggia-variant fracture-dislocation of the elbow. Records were reviewed to determine patient age, mechanism of injury, treatment method, and outcomes (elbow motion and pain scores).

**Results:** A total of 129 patients (10 “terrible triad”, 93 transolecranon, and 26 Monteggia-variant injuries) were identified that met inclusion criteria. All patients were treated surgically for their injuries with a common algorithm that included anatomical reduction of the ulna fracture, repair or replacement of a radial head fracture (if present), lateral collateral ligament repair if necessary, and early motion. Two patients died from other simultaneous injuries and four patients had nonunions of their ulnar fractures (three had been open fractures). At an average of 7 months post-surgery, average elbow flexion-extension arc was 12-124 degrees, forearm supination was 76 degrees, and forearm pronation was 78 degrees. Average pain score was 0.75 on a scale of 0-10.

**Conclusion:** With meticulous surgical treatment and aggressive rehabilitation, patients sustaining complex fracture-dislocations of the elbow can expect excellent medium-term outcomes (good elbow function and minimal pain) after recovery from their injuries.