

Surgical Elbow Dislocation: Technique and Comparative Outcomes

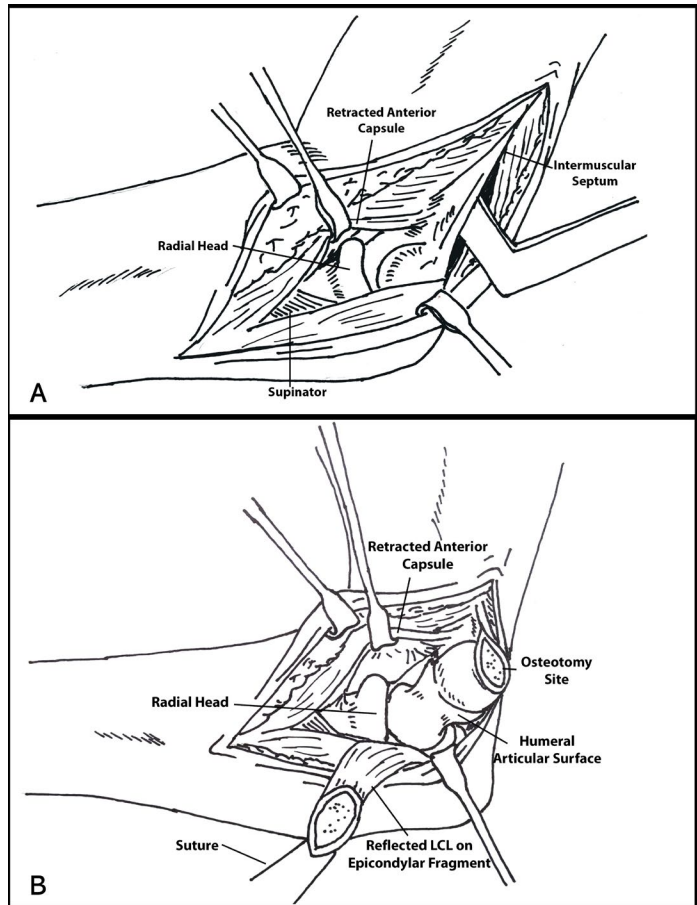
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Purpose: Surgical access to lateral column fractures of the distal humerus is difficult via traditional approaches due to limited anterior articular exposure for direct reduction and fixation. We have refined a surgical elbow dislocation approach to the articular surface of the distal humerus for fixation of lateral column injuries, which may permit improved access for operative fixation.

Methods: We performed a retrospective review of lateral column fractures treated with open reduction and internal fixation at our institution between 2009 and 2019. We divided patients into three cohorts based on surgical approach: surgical dislocation (n = 10), lateral (n = 17), and posterior (n = 9). Surgical reports, radiographs, and patient records were reviewed for hardware positioning, tourniquet time, estimated blood loss (EBL), postoperative reduction quality, and patient outcomes including range of motion (ROM), neurovascular injury, development of heterotopic ossification (HO), and pain on a visual analog scale.

Results: With the numbers available, we were unable to detect a significant difference in outcomes including pain, ROM, or blood loss. No patients treated with this approach experienced neurovascular injury, instability, or nonunion at follow-up.

Conclusion: The surgical elbow dislocation is a powerful tool to aid reduction and osteosynthesis of intra-articular fractures of the lateral distal humerus. It may enable greater articular access for complex distal humerus patterns without deleterious effects on surgical or patient-reported outcomes.



TECHNICAL TRICKS AND TIPS

The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice.