

Eric Larson – 2021 – RRD - Missed Perilunate Dislocations: Who Is at Risk and How Can These Injuries be Best Managed?

Missed Perilunate Dislocations: Who Is at Risk and How Can These Injuries be Best Managed?

Background:

Perilunate dislocations are devastating injuries that occur relatively rarely, accounting for only 7% of injuries to the carpus. Unfortunately, approximately 25% of these injuries are missed on initial evaluation. Acutely diagnosed perilunate dislocations may be successfully treated with ligament and osseous repair, depending on the injury pattern. Chronic dislocations, however, are primarily treated with salvage procedures.

Purpose:

This case series was performed to investigate the outcomes of patients who sustained a perilunate dislocation that was diagnosed in a delayed fashion. We sought to identify patient characteristics that were most closely associated with a missed initial perilunate dislocation. We also identified potential treatment options, depending on the patient's injury characteristics. We assessed the overall improvement in pain and wrist range of motion in these patients following surgical management.

Methods:

Patients presenting to a single institution between 2016 and 2018 with a perilunate injury that either presented in a delayed fashion or was missed on initial assessment were identified and their characteristics were evaluated. The surgical management of these patients was assessed as was their postoperative course at their 2 week, 6 week, 3 month, and 6 month clinic follow up visits.

Results:

Eight patients were identified with perilunate dislocations that were diagnosed in a delayed fashion. On average, these dislocations were diagnosed 133 days following the date of injury. All patients were males and 7/8 of them were between 17 and 20 years of age at the time of their injury (mean age 25.5). They were treated with either primary repair, wrist fusion, proximal row carpectomy, or scaphoid excision and four corner fusion. Both pain and range of motion improved following surgical management of these injuries.

Conclusion:

Perilunate dislocations are rare injuries that are notorious for being diagnosed late, at which point primary repair is oftentimes no longer feasible. By identifying individuals who are at risk for missed initial diagnosis, we hope to increase our ability to identify these injuries at the time they occur. Salvage procedures are able to improve the range of motion and pain of patients who are found to have chronic dislocations.