

Isolated Posterior Cruciate Ligament Injuries among Major League Baseball Players and Return to Play: Conservative vs Surgical Management

Introduction: Controversy exists regarding the appropriate non-operative or surgical treatment of isolated posterior cruciate ligament (PCL) injuries, especially among high-performing athletes. A paucity of literature focuses on isolated PCL injuries among major league baseball (MLB) players and time to return-to-play (RTP). We sought to assess the intervention type and time to RTP in professional baseball athletes who sustained an isolated PCL injury.

Methods: Utilizing the MLB disability list (DL) database between 2004 and 2013, professional MLB athletes who sustained acute isolated PCL injuries presenting within 3 weeks of injury were identified. Parameters included consisted of age, injury date, examination date, RTP date, and treatment intervention. A Student T-test was performed to assess RTP time among athletes managed with non-operative or operative treatment.

Results: Between 2004 and 2013, 21 professional athletes had an isolated PCL injury, 3 (14.3%) of whom were excluded due to lack of identified treatment. The average age at time of injury was 27.1 (95% CI [20.8 – 43.6]) years. Initial examination was performed 2.6 (95% CI [0.0 – 20.0]) days following the injury. Of the remaining 18 injuries, 11 (61.1%) and 7 (38.9%) arose in the right and left knees, respectively. Injury type included strain/sprain (2 cases [11.1%]), PCL tear (2 cases [11.1%]), and other PCL injuries (14 cases [77.8%]). Three (16.7%) and 15 (83.3%) athletes received surgical and conservative management, respectively. The mean RTP time was 20.8 (7.0 – 66.0) days. No statistical difference was reported in RTP between intervention types (surgical: 14.0 days vs conservative: 16.0 days), $p=0.17$.

Discussion: There was no significant difference in RTP time among isolated PCL injuries requiring either non-surgical or surgical management. This data provides valuable information to sport medical surgeons treating athletes with isolated PCL injuries.