Return to Play after Shoulder Instability Surgery in NCAA Division I Intercollegiate Football Athletes

Richard J. Robins, U.S. Air Force Academy
Jimmy Hoshang Daruwalla, Emory University
John Xerogeanes, Emory University
Patrick E. Greis, University of Utah

Journal Title: Orthopaedic Journal of Sports Medicine
Volume: Volume 4, Number 7 Suppl
Publisher: SAGE Publications (UK and US): Creative Commons Attribution | 2016-07-29
Type of Work: Article | Final Publisher PDF
Publisher DOI: 10.1177/2325967116S00180
Permanent URL: https://pid.emory.edu/ark:/25593/rr38p

Final published version: http://dx.doi.org/10.1177/2325967116S00180

Copyright information:
©The Author(s) 2016
This is an Open Access work distributed under the terms of the Creative Commons Attribution-NonCommerical-NoDerivs 3.0 Unported License (http://creativecommons.org/licenses/by-nc-nd/3.0/).

Accessed November 10, 2019 1:33 PM EST
Return to Play after Shoulder Instability Surgery in NCAA Division I Intercollegiate Football Athletes

Richard J. Robins, MD1, Jimmy Hoshang Daruwalla, MD2, John W. Xerogeanes, MD3, Patrick E. Greis, MD4

1Dept. of Orthopaedics and Sports Medicine, U.S. Air Force Academy, CO, USA, 2Emory University Department of Orthopaedics, Atlanta, GA, USA, 3Emory Orthopaedic Center, Atlanta, GA, USA, 4University of Utah Orthopaedic Center, Salt Lake City, UT, USA.

Objectives: The purpose of this study was to evaluate return to play (RTP) rates and variables influencing RTP in division I intercollegiate football athletes following shoulder instability surgery.

Methods: Requests for participation in the study were sent to select sports medicine programs caring for athletes participating in football from the PAC-12, SEC, and ACC athletic conferences. After gaining IRB approval, 7 programs were able to participate in the study. Inclusion criteria were restricted to athletes active during the 2004-2013 seasons that required surgical treatment for shoulder instability. Direction of instability, type of surgery, time to resume participation, quality and level of play data both before and after surgery was collected for each athlete. Data was analyzed to determine overall RTP and the influence that scholarship and depth chart position prior to surgery had on RTP. To determine the effect that surgery had on players' ability to RTP, the percent of games played before and after surgery was determined.

Results: 177 shoulder injuries in 153 athletes were identified and met inclusion criteria. Overall, 85.4% of players who underwent arthroscopic surgery without concomitant procedures returned to play. 82.4% of players who underwent anterior labral repair, 88.7% of those that underwent posterior labral repair, and 84.8% who underwent combined anterior-posterior repair returned to sport. Categorized by depth chart position, 93.3% of starters, 95.4% of utilized players, and 75.7% of rarely used players returned to play. The percentage of games played in by athletes prior to injury was 49.9%, and rose to 71.5% following surgery. Athletes who played in a higher percentage of games prior to injury (49.4 +/- 43.4%) were more likely to return to play than athletes who played in a fewer percentage of games (19.6 +/- 39.4%). Of the 42 athletes identified as starters prior to injury that returned to play, 98% continued as starters; 2% became utilized players. Of the 41 players that prior to injury were utilized, 49% became starters, 49% remained utilized, and 2% rarely played following surgery. For the 56 players identified as rarely playing pre-injury that returned to play, 36% became starters, 23% were utilized athletes, and 41% maintained their rarely playing status. Having a scholarship significantly correlated with RTP after surgery.

Conclusion: RTP rates in high-level intercollegiate football players undergoing shoulder stabilization surgery was 85%. Posterior labral repair, anterior labral repair, and combined labral repair demonstrated no statistical difference in RTP rates. The majority of surgical interventions were isolated arthroscopic stabilization procedures, and demonstrated no statistically significant difference in RTP rates when concomitant arthroscopic procedures or open stabilization procedures were performed. Finally, athletes who return to play often did so in a higher percentage of games following surgery than they did prior to injury, and many players were utilized at the same or a higher level by their teams following surgery. These findings suggest that the majority of football players at the division 1 level who undergo shoulder stabilization surgery are able to participate fully in their programs, and progress and develop as players following their return to sport.

The Orthopaedic Journal of Sports Medicine, 4(7)(suppl 4)
DOI: 10.1177/2325967116S00180
©The Author(s) 2016