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Career Longevity and Performance Following Shoulder Instability in National Football League Athletes

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Purpose: To investigate the career longevity, game utilization and performance of National Football League (NFL) athletes following glenohumeral instability events treated operatively versus nonoperatively.

Methods: Public resources identified NFL players who sustained a shoulder instability event from 2000-2019. Players with prior shoulder instability, without NFL experience before injury, or who did not return to play (RTP) after injury were excluded. Demographic information, utilization (games and seasons), and season approximate value (SAV) statistics were recorded one year prior to injury and three years following return to play (RTP). Statistical analysis compared utilization and SAV following RTP for athletes managed operatively versus nonoperatively.

Results: Ninety-seven NFL players who sustained their first instability event while playing in the NFL were identified, 91 of whom RTP (93.8%). Quarterbacks were significantly more likely to undergo immediate surgical management compared to other positions ($P=.023$). Final analysis included 58 players managed operatively and 33 players managed nonoperatively by the end of the index season. Players treated operatively played in significantly more seasons following RTP during their remaining career (4.1 ± 2.7 vs. 2.8 ± 2.5 seasons; $P=.015$). There were no differences in games played or started, offensive or defensive snap count percentage, or performance (SAV) before and after injury when compared between cohorts ($P>.05$). Following surgical stabilization, time to RTP (36.62 ± 10.32 vs. 5.43 ± 12.33 weeks, $P<.05$) and time interval before recurrent instability (105.7 ± 100.1 vs. 24.7 ± 40.6 weeks, $P<0.001$) were significantly longer than with non-operative treatment. Additionally, the operative cohort experienced less recurrent instability (27% vs. 50%; $P=.035$).

Conclusions: Athletes who RTP in the NFL following a shoulder instability injury do so with similar workload and performance irrespective of surgical or non-surgical management. While nonoperative treatment is associated with faster return to play, operative management is associated with fewer recurrent instability events, greater time between recurrent instability events, and greater career longevity