Outcomes and Return to Sport Following Arthroscopic Bankart Repair for Anterior Shoulder Instability in Contact versus Non-contact Athletes: A Systematic Review and Meta-Analysis

Kevin A Hao, Jayson Saleet, Alexander John Ment, Richawna Elizabeth Cassie, Emily Curry[1], Antonio Cusano[2], Hussein Abdul-Rassoul, Robert L. Parisien[3], Xinning Li[4]
[1]Boston University, [2]Hospital For Special Surgery, [3]Mount Sinai Health System, [4]Boston University School of Medicine

INTRODUCTION:
Anterior shoulder instability (ASI) accounts for over 90% of shoulder dislocations and is more often seen in athletes than in the general population. The arthroscopic Bankart repair (ABR) is among the most common procedures employed to treat patients with recurrent ASI and is associated with excellent results; however, its success may be limited in certain population such as higher-demand contact athletes. The aim of this study was to assess the outcomes of ABR for the management of ASI in contact versus non-contact athletes.
METHODS:
A systematic review was performed using PRISMA guidelines. Included studies reported ABR to treat ASI in athletes with 1-year minimum follow-up. Exclusion criteria included non-English text, multidirectional instability, concomitant remplissage procedure, revision procedures, unclear definition of contact and non-contact sports, studies with sample size <10, and review articles. Random-effects meta-analysis was performed to compare rates of return to sport (RTS), return to pre-injury level, recurrence of instability, and need for revision surgery.
RESULTS:
Of the 1,359 screened studies, 18 studies (1,254 shoulders) were included. Mean age was 22.3±3.0 years (range: 13-69), 90% were male, and the mean follow-up was 58±23 months (range: 12-168). Contact and non-contact athletes had similar rates of RTS (87% [95% confidence interval [CI]=55-97%] vs. 89% [77-95%], *P*=.827**; Figure 1**) and return to pre-injury level (64% [43-80%] vs. 80% [71-86%], *P*=.097**; Figure 2**). However, contact athletes demonstrated greater rates of recurrent instability (28% [20-38%] vs. 8% [5-15%], *P*<.001; **Figure 3**) and need for revision surgery (12% [8-18%] vs. 3% [2-8%], *P*=.005; **Figure 4**).
DISCUSSION AND CONCLUSION:
Compared to non-contact athletes, contact athletes demonstrate similar rates of RTS and return to pre-injury level of play, but increased rates of recurrent instability and need for revision surgery following isolated ABR for ASI. Future investigations are needed to determine whether contact athletes with ASI would be more effectively treated with ABR with concomitant remplissage, the Latarjet procedure, or another technique.