

Return to Play and Recurrent Instability Rates in Open versus Arthroscopic Anterior Shoulder Stabilization in the Contact and Collision Athlete: A Systematic Review

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INTRODUCTION:

Significant controversy exists regarding the optimal surgical management of contact or collision athletes with anterior shoulder instability, and whether an arthroscopic or open approach should be performed. The purpose of this systematic review is to compare return-to-play and recurrence rates in collision and contact athletes who undergo open or arthroscopic Bankart repair.

METHODS:

The literature search was performed based on the PRISMA guidelines. Cohort studies comparing the open and arthroscopic Bankart repair for anterior shoulder instability in contact/collision athletes were included. Clinical outcomes were compared, with all statistical analysis performed using Review Manager Version 5.3.

RESULTS:

Seven clinical trials with 369 athletes were included. There was a statistically significant difference in favor of open Bankart repair for recurrent instability (6.4% vs 24.2%, $I^2 = 0\%$, $p = 0.002$). There was no statistically significant difference in return to play (91.2% vs 92.6%, $I^2 = 0\%$, $p = 0.88$), or return at pre-injury level (42.6% vs 32.4%, $I^2 = 0\%$, $p = 0.16$). There was no statistically significant difference (RR; 0.87, 95% CI, 0.71 to 1.06, $I^2 = 0\%$, $p = 0.16$). Among those undergoing open Bankart repair, the best-case and worst-case analysis revealed that the recurrence rate could be between 8%-9% in those able to return to play. Among those undergoing arthroscopic Bankart repair, the best-case and worst-case analysis revealed that the recurrence rate could be between 23.8%-31% in those able to return to play.

DISCUSSION AND CONCLUSION:

Contact or collision athletes undergoing anterior shoulder stabilization have lower rates of recurrent instability when with an open Bankart repair. However, similar return-to-play rates are seen with either approach.