Arthroscopic & Open Bankart Repair Vs Open Latarjet Procedure For the Treatment of Anterior Shoulder Instability In Adolescent Collision Athletes

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INTRODUCTION: Adolescent collision athletes are a high demand population and are the highest risk group for recurrent instability after stabilization. The purpose of this study was to compare return to play (RTP), recurrence and functional outcomes in adolescent collision athletes.

METHODS: A retrospective review of collision athletes ≤ 20 years of age who underwent stabilization by a single surgeon was performed to identify patients undergoing Arthroscopic Bankart Repair (ABR), Open Bankart Repair (OBR) and the Open Latarjet (OL) procedure with ≥ 2 year follow up. Recurrent instability, Visual Analogue Scale (VAS), satisfaction, Subjective Shoulder Value (SSV), Rowe score, Shoulder Instability-Return to Sport after Injury (SIRSI) score and the rate, level and timing of RTP were evaluated.

RESULTS:

Overall, there were 239 collision athletes (102 ABR, 34 OBR & 103 OL) with a mean age of 18.3 ± 1.2 and follow up of 52.7 ± 28.2 months. There was no significant difference in the rate of RTP between any of the groups (ABR: 96.1% vs OBR: 89.2% vs OL:88.3%, p = 0.101), RTP at the same or higher level (ABR: 74.5% vs OBR: 79.4% vs OL: 68.9%, p= 0.280) or time to RTP (ABR: 6.9 ± 3.1 vs OBR: 5.8 ± 2.2 vs OL: 6.4 ± 2.2, p = 0.058), or in the mean SIRSI score (ABR: 71.5 ± 22.3 vs OBR: 71.9 ± 18.8 vs OL: 69.6 ± 20.9, p > 0.99). There was no significant difference in the re-dislocation rate between ABR and OBR (22.5% vs 23.5%, p >0.99), but both procedures resulted in significantly greater rates of re-dislocation than OL at 4.8% (p = 0.001). There was no significant difference in the mean VAS scores (ABR: 1.9 ± 2.1 vs OBR: 1.6 ± 1.8 vs OL: 2.4 ± 2.2, p = 0.098) and SSV scores (ABR: 88.5 ± 13.8 vs OBR: 86.8 ± 17.5 vs OL: 84.6 ± 14.9, p = 0.053).

DISCUSSION AND CONCLUSION: Adolescent collision athletes report similar functional outcomes as well as rates, level and timing of return to play over medium term follow up, however, ABR and OBR are associated with significantly greater recurrent instability than the OL.