ISAKOS

International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine

11th Biennial ISAKOS Congress • June 4-8, 2017 • Shanghai, China

Paper #57

Complications Following Anterior Shoulder Instability Treatment: Bankart Repair Versus Latarjet

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Summary:
The rate of utilization of Latarjet and arthroscopic Bankart repair has increased in the US in the past seven years, with the odds of requiring a reoperation or developing any post-operative complication were greater following Latarjet versus Bankart repair.

Abstract:
Introduction:
Utilization of the Latarjet procedure for recurrent anterior shoulder instability has increased in recent years; however, reported complication rates following Latarjet are based upon small, non-comparative studies. The purpose of this study was to utilize a large population cohort to compare complication and reoperation rates following the Latarjet procedure to those following the current gold standard, arthroscopic Bankart repair.
Methods:
Using current procedural terminology (CPT) codes, a population database was used to generate a cohort of patients who underwent the Latarjet procedure and Bankart repair between 2007 and 2014 in the United States (US). Complications following either procedure were identified using International Classification of Diseases (ICD)-9 codes, including deep vein thrombosis/pulmonary embolus (DVT/PE), nerve injury, surgical site infection (SSI), hematoma, capsulitis, and dislocation, while CPT codes were used to determine overall and procedure specific reoperations, including irrigation and debridement (I&D), open reduction, and lysis of adhesions/manipulation under anesthesia (LOA/MUA). A multivariate logistic regression that accounted for differences in patient demographics and comorbidities was used to compare complication and reoperation rates, and results were reported as odds ratios (OR), with statistical significance noted for P values < 0.05.
Results:
A total of 5331 consecutive patients who underwent shoulder stabilization procedures between 2007 and 2014 were identified and included. A total of 4764 patients underwent arthroscopic Bankart repair (71.6% male), 428 patients underwent open Bankart repair (68.7% male), and 139 patients underwent Latarjet (75.5% male). Over the 7-year time period, there were significant increases in the annual rates of both arthroscopic Bankart repair (2007: 9.4% vs. 2014: 15.8%, P<0.001) and Latarjet (2007: <7.91% to 20.9%, P=0.016) procedures performed. In contrast, the number of open Bankart repairs decreased (2007: 16.8% vs 2014: 11.4%, P=0.002). The odds of reoperation at 90-days, 6-months, and 1-year following the Latarjet procedure was 350% (p<0.001), 210% (p<0.001), and 250% (p<0.001) greater than arthroscopic Bankart repair. Similarly, the odds of a DVT/PE diagnosis (OR 8.2, p=0.02) was significantly greater following Latarjet as compared to arthroscopic Bankart repair. Interestingly, the odds of a postoperative SSI, nerve injury, adhesive capsulitis, or I&D were not significantly different between patients undergoing the Latarjet procedure and arthroscopic Bankart repair.
Conclusions:

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The rate of utilization of Latarjet and arthroscopic Bankart repair has increased in the US in the past seven years in conjunction with increased treatment of anterior shoulder instability, while the rate of open stabilization has decreased. The odds of requiring a reoperation or developing any post-operative complication were greater following Latarjet as compared to arthroscopic Bankart repair. In contrast to historical data, the odds of post-operative SSI, nerve injury, and/or postoperative I&D in patients undergoing Latarjet were no different than that of patients undergoing arthroscopic Bankart repair.