Regional vs General Anesthesia Outcomes in Reverse Total Shoulder Arthroplasty

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Purpose: The purpose of this study is to evaluate the efficacy of a regional block compared with general anesthesia for reverse total shoulder arthroplasty (RTSA) procedures.

Methods: This retrospective study evaluated 527 RTSA cases performed at a single academic center over the last 10 years. Patients were grouped into one of two cohorts: 'Regional' or 'General', based on the anesthesia type used in their operation. Outcomes included intraoperative complications, postoperative pain levels, postoperative nausea and vomiting (PONV), length of surgery, length of admission, and need for readmission and revision surgery.

Results: All regional anesthesia cases were completed successfully without conversion to general anesthesia. There was no significant difference in intraoperative complication rates between regional and general groups (1.2% vs 0%, $p = 0.35$). Additionally, there was no group difference with regard to postoperative pain ($p>0.5$), PONV ($p>0.5$), readmission ($p = 0.5$), or need for revision ($p = 0.5$). The regional group did experience significantly shorter average length of surgery (112 min vs 141 min, $p<0.001$) and average length of admission (49.1 hr vs 54.3 hr, $p = 0.02$) than the general anesthesia group.

Conclusion: Our study demonstrates that the use of regional anesthesia in RTSA is safe and confers similar outcomes to the use of general anesthesia while decreasing length of surgery and length of admission. These results may be interpreted as a higher quality approach.