

One- and Two-Year Patient Reported Outcomes Do Not Vary Significantly After Total and Reverse Shoulder Arthroplasty: An Analysis of 2,973 Patients

Midhat Patel¹, Haroon Kisana, Molly Sekar, Joshua Bengtson Sykes, Michael Haessam Amini

¹Dept of Orthopedics Univ Ariz COM Phx

INTRODUCTION:

Many orthopedic journals require 2 years of follow-up data for clinical studies. This creates significant delay in dissemination of information and creates a much greater administrative burden to achieve high follow up rates at 2 years. Yet, it is unclear if there are significant changes in patient reported outcomes (PROs) between 1 and 2 years postoperatively. The current study sought to evaluate changes in PROs between 1- and 2-years postoperatively after anatomic total shoulder arthroplasty (TSA) and reverse shoulder arthroplasty (RSA). The authors hypothesized that there would not be clinically significant changes in PROs between 1- and 2-years postoperatively.

METHODS:

A prospective, multicenter registry was queried for all patients that underwent TSA and RSA. Patients with preoperative, 6 month, 1 year, and 2 year postoperative American Shoulder and Elbow Society (ASES) scores were included. Clinically Significant Outcomes (CSOs) for the ASES score included the minimal clinically important difference (MCID), substantial clinical benefit (SCB), and patient-acceptable symptom state (PASS) as established by Gowd et al.¹. Patients were stratified based on achievement of CSOs at 1- and 2-years postoperatively. We evaluated the entire arthroplasty cohort, as well as subanalyses of TSA and RSA, individually.

RESULTS:

A total of 2973 patients had complete data: 1510 underwent TSA and 1463 underwent RSA. Overall achievement of CSOs showed minimal change from one to two years: 92.4% to 92.0% for MCID, 82.9% to 83.8% for SCB, and 65.1% to 67.5% for PASS (Figure 1). There was also minimal change from one to two years in the mean ASES score (83.2 to 83.9), the improvement in the ASES score from preoperatively (40.8 to 41.5), and the %MPI (69.2% to 70.7%) (Figure 2). Subanalyses of TSA and RSA also revealed similarly minimal changes from one to two years.

DISCUSSION AND CONCLUSION:

Postoperative PROs and achievement of CSOs are almost identical at 1- and 2-years after both TSA and RSA. This data suggests that allowing 1-year outcomes for PROs after shoulder arthroplasty may facilitate more timely dissemination of information and less resource-intensive research studies.

