

Title of Presentation:

The Reverse Shoulder Arthroplasty: A Look at Patient Derived Outcomes and Complications

Author: Alison L. Cabrera, MD, San Antonio

Co-author: Jason Rabenold

Learning Objectives (After attending this session, the attendee should be able to):

- appreciate the goals and necessity of the Reverse Shoulder Arthroplasty
- understand the historical complications that are associated with this procedure.

PURPOSE:

The Reverse Shoulder Arthroplasty has been shown to provide pain relief and improved functionality in patients with Cuff Tear Arthropathy. The purpose of this study was to investigate the complications of the Reverse Shoulder Arthroplasty, using the Delta and Delta Xtend prostheses.

METHODS:

In the years 2004 through 2008, sixty-two Delta Reverse Shoulder Prostheses were implanted in sixty patients for Cuff Tear Arthropathy in thirty-eight patients, Nonunion of Proximal humerus fracture in eight patients, Failure of Hemiarthroplasty in eight patients, Failure of Total Shoulder Arthroplasty in four patients, and Failure of Cuff Tear Arthroplasty in two patients. In 2007 through 2008, seventeen Delta Xtend Shoulder Prostheses were implanted in seventeen patients for Cuff Tear Arthropathy in nine patients, Failure of Hemiarthroplasty in four patients, Failure of Cuff Tear Arthroplasty in two patients, Avascular Necrosis in one patient, and Failed Reverse Shoulder Arthroplasty in one patient. Clinical Assessments were performed at regular intervals with use of visual analog scales for pain, shoulder comfort and function, and with use of patient self-assessments including the American Shoulder and Elbow Surgeons Score and the Simple Shoulder Test.

RESULTS:

Of the sixty patients with Delta prostheses, fifty-three (88%) were available for follow up more than three months after their surgery. Three patients had complication of anterior dislocation, two of which occurred in 2004 and have undergone revisions which have not had any complications. One patient had partial musculocutaneous and radial nerve deficits which have near completely resolved and were functionally not limiting. Patients demonstrated significant improvement in Visual Analog Scales, Simple Shoulder Test, and American Shoulder and Elbow Surgeons Score at follow up. Average length of follow up for the Delta prostheses was twenty months, ranging from three to forty-eight months. Of the fifty-two patients with radiographic follow up, twenty-three (44%) of the patients with Delta prostheses, showed some mild to moderate evidence of scapular notching which we classified using the Nerot Classification. Of the seventeen Delta Xtend prostheses, there have not been any complications or significant radiographic changes including scapular notching. Average length of follow up for the Delta Xtend prostheses is four months, ranging from two to twelve months.

CONCLUSIONS:

Overall, our investigation shows a low rate of complications (6%), primarily dislocation, which occurred in the beginning of the use of the Delta prosthesis. No complications were found in patients in 2008 signifying the likelihood of decreased complications associated with surgeon experience.

