Orthopaedic Surgery

Reverse shoulder arthroplasty can relieve pain and restore function

Patients with bone-on-bone osteoarthritis and intact rotator cuff tendons are generally good candidates for conventional total shoulder replacement, and about 23,000 people undergo the procedure every year. But select patients with irreparable rotator cuff tears and a form of glenohumeral arthritis resulting from rotator cuff dysfunction, known as cuff-tear arthropathy, may benefit from reverse shoulder arthroplasty, a relatively new procedure initially approved by the Food and Drug Administration in 2004.

Reverse shoulder replacement does exactly what it says: it puts a socket on the ball side of the joint and a ball on the socket side. In doing so, its state-of-the-art engineering allows a patient to lift his or her arm using the deltoid muscle despite a deficiency in the rotator cuff. Recent journal articles have suggested that shoulder arthroplasty is being underutilized for arthritis because physicians may not be aware that it is an option.

"Improving awareness regarding the utility of conventional and reverse shoulder replacement is critical as the baby-boomer population continues to age. Each can play an important role by relieving pain and restoring function in patients who still suffer disability despite conservative management," said William Robertson, MD, Assistant Professor of Orthopaedic Surgery in the Sports Medicine & Shoulder Service at UT Southwestern Medical Center.

"Reverse shoulder arthroplasty is not for everyone," said Dr. Robertson. "Other treatments such as arthroscopic debridement, biceps tendon release, and other rotator cuff deficient implants should be considered, and the treatment should be tailored to the individual needs of the patient."

Several studies now demonstrate the effectiveness of reverse shoulder arthroplasty, with improved range of motion and pain relief even for patients with limited preoperative function. Long-term, follow-up studies demonstrate improved ability to raise the arm to the side from 40 degrees to an average of 117 degrees.

However, complications including dislocation, stress fractures, brachial plexopathy, and scapular notching can occur, so selecting an experienced surgical team is essential. Whereas dedicated shoulder specialists at UT Southwestern perform dozens of such surgeries annually, research has indicated that as many as 75 percent of shoulder replacement surgeries nationally are done by surgeons who perform only one or two procedures a year.

UT Southwestern physicians treat all shoulder disorders, including acromioclavicular joint injuries, arthritis, bursitis, capsular and labral injuries, dislocations or instability, fractures of the shoulder or clavicle, frozen shoulder, rotator cuff tears and injuries, SLAP tears, and tendinitis.

To speak with a patient referral specialist about available medical services at UT Southwestern, call 214-645-8300.