



## 2019 Annual Conference Abstract Submission

### **PRESENTATION TITLE:**

Subscapularis Repair In Reverse Total Shoulder Replacement Using Subscapularis Peel And A Novel Through-Implant Suture Technique: Early Clinical Outcomes

### **DEGREE:**

MD - Resident

### **IF NOT ACCEPTED FOR PODIUM PRESENTATION, IS POSTER PRESENTATION ACCEPTABLE?**

Yes

### **LIST ANY DEVICES NOT CURRENTLY APPROVED FOR USE BY THE FDA:**

### **STRUCTURED ABSTRACT (PURPOSE, METHODS, RESULTS, AND CONCLUSIONS) IN LESS THAN 400 WORDS:**

**Purpose:** To investigate the survivorship and clinical outcomes of stem-based subscapularis repair in reverse shoulder arthroplasty

**Methods:** A prospective cohort study was conducted and included patients from a single shoulder surgery center. Patients who underwent RSA for the treatment of arthritis with cuff arthropathy or proximal humerus fracture were included. All surgical procedures were performed by a single fellowship trained surgeon between August 2016 and March 2017. Preoperative evaluation was uniform among all patients and included a review of past medical and surgical history and current medications. Operative setting did not differ within the cohort, and the Univers™ Apex Surgical Technique was used for all patients. Postoperative care was also consistent throughout the cohort. All study participants completed outcome assessments prospectively, including the American Shoulder and Elbow Surgeons Shoulder Score (ASES), the Single Assessment Numeric Evaluation Index (SANE), and the Visual Analog Scale (VAS). Each measure was recorded both preoperatively and one year postoperatively along with forward flexion, internal and external rotation, and power. Ultrasound evaluation of the subscapularis tendon repair was also performed at one year follow up for each patient, and tendon repair status was divided into three categories: intact, attenuated, and torn.

**Results:** The cohort consisted of ten males (56%) and eight females (44%) for a total of 18 study participants (mean age, 70 years; age range, 47-83 years). The average postoperative follow up in this study was 16 months (range, 13-20 months). Significant improvements in both ASES score, 36 to 84 ( $p=0.001$ ), and SANE score, 39 to 84 ( $p=0.002$ ), were observed. There was also a decrease in the VAS from 6 to 1 ( $p=0.001$ ). While no change was observed in internal rotation, there was significant improvement in forward flexion,  $95^\circ$  to  $128^\circ$  ( $p=0.001$ ), and external rotation,  $23^\circ$  to  $36^\circ$  ( $p=0.003$ ). On ultrasound evaluation, the subscapularis tendon was found to be intact in 14 patients (78%), attenuated in three patients (17%), and torn in one patient (5%).

**Conclusions:** Patients who undergo RSA with stem-based subscapularis repair have excellent outcome scores and range of motion at 1-year postoperatively. The Univers™ Apex Surgical Technique demonstrates reliable healing of the subscapularis in a small cohort of patients.