



Reverse Total Shoulder Arthroscopy



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Introduction

In this case review the patient reported to Physical Therapy with pain in her left shoulder. She fell in her garage which caused a FOOSH injury. The patient fractured her humerus and suffered a 3rd degree strain of her rotator cuff. After seeing her orthopedic surgeon, a reverse total shoulder surgery was recommended to correct the problem. The reverse total shoulder arthroplasty has become more widely used over the past ten years. However, it is still selectively used since the ball and socket of the shoulder are replaced and switches positions.

Purpose

The intention of this case review is to showcase the use of a reverse total shoulder arthroscopy. Traditionally the patient would have had a shoulder replacement. The case highlights the reverse total shoulder arthroscopy and accompanying rehabilitation plan as a solution to a humeral head fracture with accompanying rotator cuff tear.

Patient Information

Observation- adherent scar, bruising, and slight edema in shoulder

ROM- Limited as outlined:

Left- AROM flex 122 abd 100 PROM flex 155 abd 129 int 27 ext 84 (elbow flex/ext)-9/-130

Right- AROM flex 168 abd 158 PROM flex 161 abd 159 int 30 ext 92 (elbow flex/ext)-2/-155

Strength-

Left- flex 4/5 ext 5/5 abd 4/5 int 4+/5 ext 4/5

Right- abd 4+/5 everything else 5/5

Palpation- hypomobile surgical scar and anterior tissues

Mobility- 1:1 SH Rhythm, Poor inferior and posterior capsular mobility

Posture- forward head and shoulders

Special Tests- (Apprehension, Impingement, Manual and Global laxity) all negative

Rehabilitation Overview

Week 1: Bandages were removed and area was cleaned. Patient went through manual therapy and was prescribed PROM exercises to complete at home. Patient predominantly remained in arm sling.

Week 2: Patient remained in sling and limited to PROM. Pendulums, table slides, and manual therapy (PROM, massaging the scars, assistive stretching).

Week 3: Patient was still in sling. Continued with pendulums, table slides, and manual therapy. In addition the patient added AAROM and external rotation (side lying with no weight) exercises.

Week 4: Patient started to limit use of arm immobilization. Continued with all previous exercises and only received manual therapy when needed. Began performing pulleys, assisted raise in the flexion plane of motion to 90 degrees, and rolling arms forward on med ball.

Week 5: Patient immobilized as needed. UBE to warm up. Pulleys for stretching. Pendulums, table slides, and AAROM are being continued. No more manual therapy. 1# weight used on the side lying external rotations.

Week 6: In addition to previous activities patient graduated to strengthening exercises. Performed various isometric exercise including: rows(red), external rotation(yellow), internal rotation(yellow), and punches(yellow).

Week 7: Patient was doing pendulums, table slides, and AAROM at home. UBE was done to warm up and pulleys were done to stretch. Patient was performing 0-90 degrees flexion and scaption (standing) with no weight. All of the tubing exercises remained the same except external rotation had progressed to a red t-band.

Week 8: Patient continued with the previous rehab plan but in addition initiated supine flexion (yellow t-band) and supine bilateral horizontal abduction (yellow t-band).

Week 9: Progressed with the rehabilitation plan and patient completed red t-band on the supine bilateral horizontal abduction. Patient also performed supine bilateral external rotation with a yellow t-band.

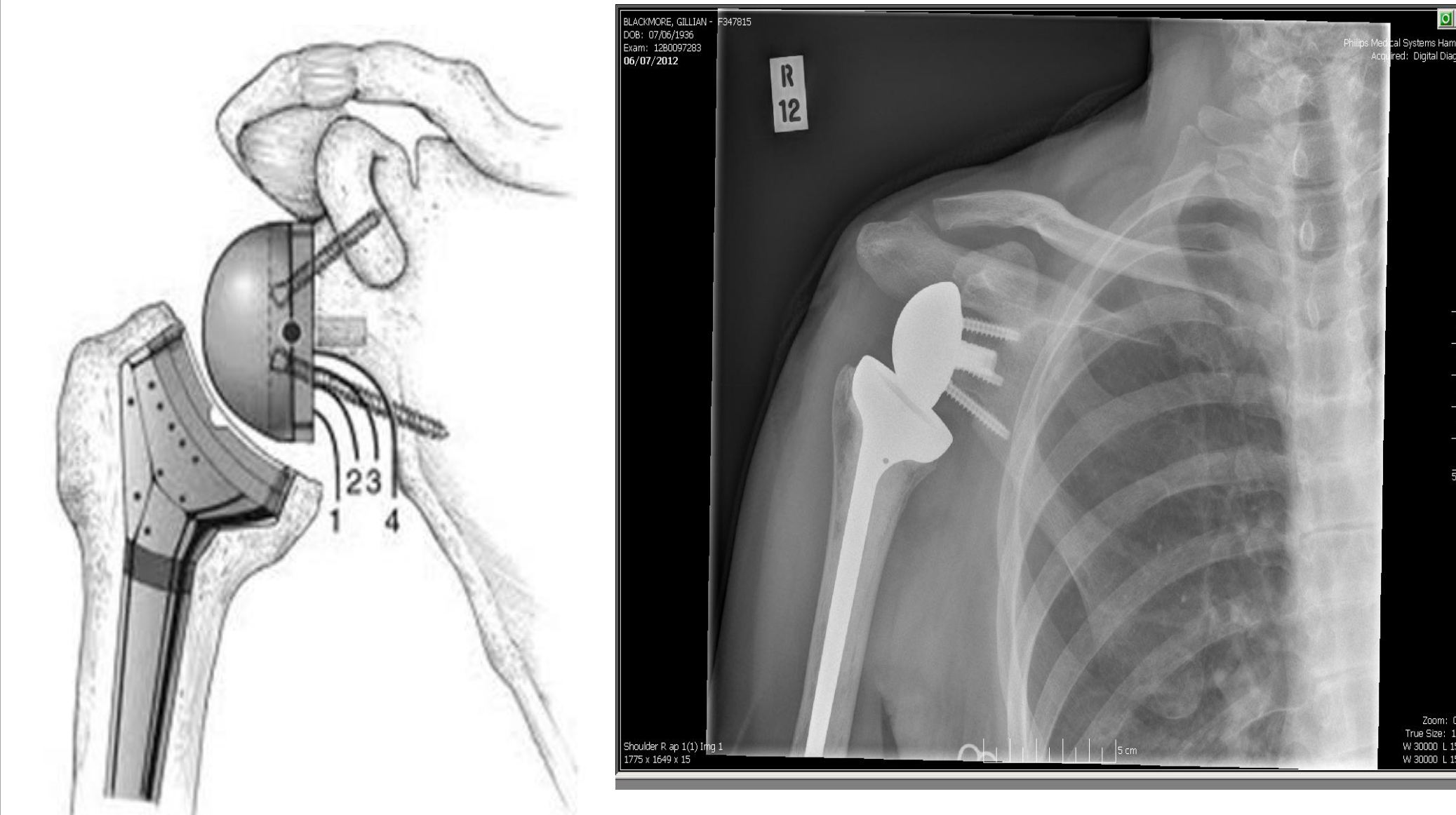
Week 10: Patient continued with exercise prescription and was then rolling a 1kg weighted ball on the wall at 90 degrees flexion for 1 minute.

Week 11: Patient moved to red on all standing tubing exercises. Progressed to cone stacking on the water cooler (about 4ft high). Supine ER in 90 degrees abduction with red t-band. The standing flexion and scaption were done with a 1# weight.

Precautions

- No shoulder motion behind the back
- No combined shoulder adduction, internal rotation (like tucking in a shirt or performing personal bathroom hygiene)
- No glenohumeral (GH) extension beyond neutral.
- Extreme precautions should be implemented for first twelve weeks following surgery

Images



Conclusion

The patient finished Physical Therapy with excellent functional outcomes. Her goals included doing her hair, carrying the laundry basket, being able to put dishes away in a high cabinet and other activities of daily living. She was able to perform all of the above mentioned tasks by the time she was completed Physical Therapy. This case demonstrates a positive outcome enhancing function following a reverse total shoulder arthroplasty.