ABSTRACT for ASSET Presentation:

Total Shoulder Arthroplasty with Posterior Dislocation – A Case Study

Kathleen Pierce DPT, MS, OCS
Nashua, New Hampshire

BACKGROUND: Total shoulder arthroplasty is used for glenohumeral joint arthritis. Glenohumeral instability is a complication following total shoulder arthroplasty. Factors associated with instability include soft tissue imbalance, glenoid deficiency and component malpositioning. Surgical revisions for patients with glenohumeral instability following total shoulder arthroplasty may not result in stability. There is a lack of information regarding the physical therapy management of patients with posterior instability following total shoulder arthroplasty.

CASE DESCRIPTION: The patient was an 80 year old female with chronic right shoulder pain which was gradually worsening and limiting her ability to perform activities of daily living. The patient underwent a right total shoulder arthroplasty. She received 3 weeks of home physical therapy and was then referred to outpatient physical therapy. The initial PENN Score was 30 and the initial ASES Score was 47. The initial evaluation included posture, palpation and passive/active range of motion. The initial treatment included patient education, moist heat, passive, active-assisted and active range of motion exercises. The patient's pain decreased and her passive range of motion increased. The active range of motion was not increasing. At 5 weeks post op there was concern over the posterior stability of the glenohumeral joint. The patient followed up with the surgeon and at 6 weeks the PT orders were advanced to include strengthening except no resisted internal rotation. The treatment program was advanced to include strengthening and weight bearing exercises were added. ROM exercises were performed in scaption. The patient received education on the stability and motor control of the glenohumeral joint.

OUTCOME: The patient received 35 physical therapy treatments and was discharged after 4 months of treatment. At the time of discharge the patient reported no episodes of subluxation or posterior dislocation for the previous month. The PENN Score was 78 and the ASES Score was 68. The patient was no longer taking pain medication. Active range of motion of the right shoulder was 105° flexion and 95° abduction.

CONCLUSIONS: This particular patient achieved sufficient stability and function of her right shoulder following a total shoulder arthroplasty with physical therapy intervention. Further case studies are needed to develop treatment guidelines to promote dynamic stability in a patient status post total shoulder arthroplasty with post operative posterior instability.