

## **Defining the level of shoulder irritability when establishing a more effective manual therapy and therapeutic exercise approach in the management of idiopathic adhesive capsulitis: A case report.**

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**Background:** Primary of idiopathic adhesive capsulitis is a very commonly seen condition affecting up to 5% of the general population. It is defined as the loss of both active and passive shoulder range of motion in the absence of any known intrinsic, extrinsic, or systemic cause. Despite its prevalence, evaluation and treatment approaches are varied with often the patient left with residual range of motion loss correlating to functional impairment. The most appropriate treatment intervention, including physical therapy, has been the subject of extensive investigation with confusion existing pertaining to properly defining the condition and offering the patient the most effective treatment. It is commonly accepted that there are three stages of the condition, freezing, frozen, and thawing. The patient is often placed into a given stage in attempt to render the most appropriate treatment intervention. Based upon incomplete descriptions of the stages, ineffective or inappropriate treatments can be employed which can foster inconsistent results. It is advocated that a more accurate description of the patient's stage of condition be utilized thereby heightening treatment outcomes by offering the patient more effective treatment interventions.

**Purpose:** In order to achieve more consistent treatment outcomes, the level of shoulder irritability needs to be established and reassessed when treating a patient with suspected idiopathic adhesive capsulitis. Utilization of a more accurate description of the patient's given status will assist the clinician in determining the most effective physical therapy interventions and progressions as the level of irritability changes.

**Case Description:** The patient is a fifty two year old, right handed female with insidious onset of right shoulder pain. Initially, the patient underwent orthopedic examination and a diagnosis of subacromial impingement with possible rotator cuff pathology was suspected. Magnetic resonance imaging with contrast was negative and the patient underwent subacromial injection without any symptom relief. The patient's symptoms continue to increase with a gradual loss of right glenohumeral range of motion. The patient was referred to physical therapy and a diagnosis of idiopathic adhesive capsulitis was established. The initial level of shoulder irritability was determined to be high and the most appropriate treatment consisting of manual therapy and therapeutic exercise was initiated without further heightening the irritability stage. Based upon regular re-evaluations to determine if the level of shoulder irritability had changed, the appropriate manual therapy and therapeutic exercise intervention were progressed. In addition, the patient performed a progressive home program throughout the course of care that was updated as treatment interventions were progressed.

**Outcomes:** The patient was seen for a total of 12 weeks of outpatient physical therapy. During this time, the patient's functional mobility, pain, shoulder level of shoulder irritability, and shoulder range of motion were regularly monitored. The patient's treatment program consisting of manual therapy intervention and therapeutic exercise were progressed based upon periodic re-evaluations at which time the current shoulder irritability was defined. At the time of discharge, the patient was returning to all daily activity and function without being limited by right shoulder pain or range of motion loss. The Simple Shoulder Test was utilized to assess the patient's functional status and the patient demonstrated a 92% improvement since time of initial evaluation. Based upon the patient's functional mobility and low level of shoulder irritability, the patient was progressed to a structured self-management program. During follow up telephone conversation six weeks post discharge, the patient reported a full recovery in which she denies any right shoulder limitations or restrictions.

**Discussion:** Determining the level of shoulder irritability at time of initial physical examination and throughout the course of care is integral in terms of determining the most appropriate treatment intervention for the patient. This will promote a shorter period of functional impairment and a gradual progression of shoulder mobility/range of motion without the patient being limited by pain.