

Management of the Frozen Shoulder (Adhesive Capsulitis)

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Frozen shoulder is a clinical entity, rather than a pathological entity. It may be the sequelae of rotator cuff lesions, the arthritides, idiopathic etiology, or fractures and dislocations. It is most commonly found when disuse of the joint is coupled with a "periarticular personality" and low pain threshold exhibited in the clinical history. The acute phase should be considered when painful limitation of the glenohumeral joint becomes less painful as a result of increasingly limited motion of the joint. The subacute phase presents with some restriction of joint motion but with pain which presents in excess relative to the clinical findings. The chronic phase involves absence of pain with an immobile shoulder and scapulothoracic motion, rather than joint motion.

Clinically, this entity progresses from pain resulting from vasospasm and includes muscle spasm as a mechanism to limit otherwise painful motion in a patient presenting with extremity abduction in dependent position. This pathophysiology enhances venous stasis, congestion, vasospastic anoxia and leads to an edematous, proteinaceous exudate with inevitable fibrosis. Fibrosis progresses to adhesions of the osteofibrous case.

Although prevention is the best approach to this process, following acute trauma to any of the shoulder soft tissue, moist cryotherapy is applied. This author uses contrast therapy with cryotherapy as the final agent applied. As soon as the initial symptoms of acute inflammation are resolved, active use of the arm and glenohumeral joint with full range of motion will prevent progression of this entity. During this exercise period, moist heat as an infrared gel pack, or hydrocollator packs, are used to prepare for exercise procedures.

In the absence of trauma, and/or if the patient is poorly compliant and of the periarticular personality with low pain threshold, moist warm infrared therapy is appropriate, especially using a shoulder wrap in which the entire shoulder region is wrapped with the device. Make certain to guard against thermal damage to the patient. Thirty minutes of application is sufficient to provide for reflex vasodilation. Immediately following each warm infrared application instruct the patient in appropriate range of motion exercises within their tolerance limit.

If the patient presents with subacute or chronic findings, the therapy must be intensive and includes the same initial moist warm infrared therapy followed by pulsed hydrocortisone/lidocaine phonophoresis of low wattage and then interferential current therapy using the Davis procedure. During, and immediately following all modality application, range of motion exercises must be attempted. This therapy assumes the absence of any large concretions as well as complete cuff tears which are surgical problems. This author opposes manipulation of the joint under anesthesia for many reasons, having witnessed this procedure as a surgical technician many times.

The patient should be encouraged to practice good postural habits avoiding the mechanical deficit

involved in the "droopy shoulder" habit. In order to establish and maintain full range of motion of the joint rhythmic stabilization exercises are mandatory. Using an active resistive approach to this procedure may effectively substitute and circumvent any need for manipulative reduction of the joint. After achieving full range of motion of the joint, daily exercises are mandatory to avoid exacerbation. Contrary to popular opinion, this author has seen a limited number of recoveries from this clinical entity and absence of residual disability or limitations of motion is uncommon. Proper treatment, initiated early in the process, with intensive management and avoidance of progression of the lesion remains the best regimen.

References

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