SUB-ACROMIAL IMPINGEMENT SYNDROME (SAIS)

Problem:

Shoulder pain is a common source of peripheral joint pain occurring at a prevalence rate of 47% and is the second most common cause of musculoskeletal pain. Symptoms associated with shoulder disorders account for 1/3 of all physician visits and are most frequently associated with sub acromial impingement syndrome (SIS). The diagnosis of SIS represents a wide range of pathology in the shoulder including rotator cuff tendinopathies, bursitis, and rotator cuff tears. SIS occurs when the soft tissue structures of the shoulder are compressed between the humeral head of the arm and the acromion and ligaments of the shoulder blade. The etiology behind SIS is likely multifactorial including spinal or extremity joint loss of motion, upper quarter weakness, motor control impairments, and postural deviations. Unfortunately the natural history of shoulder pain is not favorable with only 50% of new shoulder problems demonstrating resolution of symptoms at 6 months.

Evidence in the medical literature supports the utilization of manual therapy to the spine and shoulder girdle in the management of shoulder pain disorders. Patients with SAIS who received thoracic spine thrust manipulations demonstrated significant decreases in pain and disability scores at 48 hours. A combined program of manual therapy and upper quarter strengthening has demonstrated improved symptoms and disability in patients with SAIS. Systematic reviews support the utilization of rotator cuff and scapular strengthening, in combination with manual therapy, for patients with SAIS.

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Evidence:

Evidence in the medical literature supports the utilization of manual therapy and exercise interventions to the spine and shoulder girdle for the management of shoulder pain disorders. Boyles et al. demonstrated significant reductions in shoulder pain and disability in patients 48 hours after being treated with thoracic manipulation interventions. In addition to spinal interventions, multiple systematic reviews support a multimodal approach to the management of SIS including manual therapy and exercise interventions to the upper quarter. Manual therapy interventions involve passive movements applied to the joints and structures of the upper quarter in an attempt to reduce pain and improve active range of motion in the shoulder joint. As noted in the Boyles et al. study many of these benefits can be experienced within a single session.

In multiple musculoskeletal conditions, including the shoulder, the combination of manual therapy and patient specific exercise seems to produce the greatest long term results. Recent medical literature reviews support the combination of manual therapy and strengthening exercises on long term reductions in pain and disability in the shoulder. In particular, evidence supports the utilization of manual therapy and exercise interventions tailored to a patient’s individual signs and symptoms. Bang et al. reported significantly greater improvements in motion, strength, pain and function in a group of patients treated with this combined approach vs. exercise alone. Based on the evidence it appears manual therapy interventions rapidly decrease pain and allow a more streamlined transition into a strengthening program. Bergman et al. demonstrated usual care interventions prescribed by a physician (medications, rest) took 52 weeks to reach the same level of recovery and functional improvement as manual therapy plus usual care reached in only 12 weeks (see graph). Finally, the combined approach of manual therapy and exercise has been shown to be equally effective as surgical interventions for SIS, but with a fraction of the cost and risk associated with these more aggressive procedures.

Referral:

Patients should consider Physical Therapy for the conservative management of shoulder pain and dysfunction associated with reaching, lifting, upper extremity and overhead activities. To determine if these interventions are appropriate for your condition contact your Physical Therapist at Waldron’s Peak Physical Therapist.
References:


