Capsulitis and Synovitis: Two Very Common Problems of the TMJ

By Darryl Curl

If you are like many of our readers you’ve often wanted to get your hands on a clinical article specifically describing the benefits of chiropractic. I know because I get a number of phone calls asking for articles regarding various aspects of head or neck pain. Well, good news is here. In regards to the temporomandibular joint we have just published an article about the chiropractic management of two very common disorders: synovitis and capsulitis. Herewith is a brief summary of the article.¹ The original article can be obtained by calling the Los Angeles College of Chiropractic library, or try your local chiropractic library.

Clinical Conditions Which May Present Similarly to Capsulitis or Synovitis.

Localized inflammatory conditions (e.g., synovitis and capsulitis) of the temporomandibular joint are commonly seen in clinical practice and typically occur following trauma, such as an auto accident. Regardless of their frequency of occurrence, these conditions must be differentially diagnosed from conditions which also may cause pain in the region of the temporomandibular joint. If local pain in the temporomandibular joint is present, and historical, physical and laboratory findings do not indicate a referred pain phenomena, systemic, tumorous or infectious involvement, local causes such as capsulitis or synovitis should be considered.

For the sake of thoroughness, here are some other things to consider: inflammation of the pre-auricular lymph node, otitis media or externa, referred pain from a trigger point, and tendonosynovitis of the temporalis tendon as it passes behind the zygomatic arch -- all may cause pain that is experienced in the region of the temporomandibular joint. Certain facial or dental pains, such as trigeminal neuralgia or dental caries, may initially present as pain over the temporomandibular joint. Bony tumors, both benign and malignant (primary and metastatic) that lie in the temporomandibular joint region, have been reported to initially present as temporomandibular joint pain. The inflammatory arthritides (i.e., ankylosing spondylitis, rheumatoid arthritis, juvenile arthritis and psoriatic arthritis, etc.) may initially present as temporomandibular joint pain and not uncommonly the initial presentation is of isolated temporomandibular joint involvement. In the case of chronic pain, the practitioner must first differentiate between whether the complaints are due to organic changes or psychosocial factors.²
Synovitis -- Chief Characteristics

Synovitis (also known as retrodiscitis) follows a typical course of events and thus makes it easy to recognize: a) the posterior attachment becomes edematous; b) intracapsular pressure increases; c) the condyle becomes displaced anteriorly in the rest position causing a barely perceptible midline shift to the opposite side; d) ipsilateral disocclusion; and e) joint pain that is aggravated when the patient attempts to fully occlude the ipsilateral teeth and, thus, forcing the condyle backward against the inflamed posterior attachment.

Capsulitis

Capsular pain is provoked when the inflamed capsule is stretched (e.g., by translatory movement of the capsule). The pain, therefore, is exacerbated by protrusion or lateral excursion of the mandible, contralateral chewing, and wide mouth opening. Capsulitis is further characterized by palpable tenderness or pain directly over the condyle and minor swelling over the joint may be detected.

Etiology

It is commonly believed that various factors which alter joint dynamics contribute to the formation of synovitis or capsulitis. Factors such as changes in occlusion, occlusal interferences, loss of posterior support, iatrogenic malocclusion, abusive oral habits, occupational conditions (e.g., holding the telephone receiver between the shoulder and ear), bruxism, microtrauma and some of the conditions mentioned at the beginning of this article can cause muscular imbalance and lead to increased loading of the temporomandibular joint.

Treatment

Management goals for patients with capsulitis or synovitis are similar to those for patients with other joint related disorders namely, decrease pain and tenderness, decrease adverse loading, restore normal function and the resumption of activities of daily living. Factors found to be etiologically important must be managed during treatment because those etiologies that initiate capsulitis or synovitis may also perpetuate them.

The initial management of noninfectious capsulitis or synovitis is similar to that prescribed for most any inflamed joint. If the condition is severe, aspirin (I prefer Bromelaine -- a pineapple extract), nonsteroidal anti-inflammatory medication, mild heat or cold, a soft diet and/or instructions to limit mandibular
movement should be quickly applied. In the case of synovitis, a stabilization appliance may prove useful as it tends to disengage the condyle from the inflamed posterior attachment. A stabilization appliance may also be used for either capsulitis or synovitis if it has been determined that relaxation of the elevator muscles is needed.

Current knowledge strongly states that adjustment of the occlusal surfaces of the teeth is absolutely contraindicated for the management of synovitis or capsulitis.

Generally, treatment of capsulitis or synovitis includes mild cryotherapy to the area for 10 to 20 minute periods followed by ultrasound or other physiotherapy. As the acute stage resolves, 20 minute applications of moist heat can be used to further reduce inflammation and associated muscle complaints. Instructions to the patient routinely include resting of the jaw, soft diet and the taking of a mild analgesic (e.g., aspirin). In the final stages of healing mobilization and manipulation of the joint has been reported to be useful in accelerating tissue repair.

**Prognosis**

The resolution of synovitis and capsulitis is usually uneventful. The clinical outcome and course of symptoms depends upon the etiology, but generally is as short as a few days when the cause is uncomplicated or related to a single stressful event.

Complications of capsulitis or synovitis are well known. The possibility of hemarthrosis or deterioration in the quality of the synovial fluid presents the chance for adhesion formation between the disc and its bony compliment. Those of you who have attended my TM seminars may remember the use of the translatory manipulation as a measure to prevent adhesion formation.

Capsular fibrosis or capsular contracture is another complication of capsulitis or synovitis. Long axis distraction with a lateral vector added to maintain or regain the length of the capsule is recommended.

**References**


With each article I encourage you to write the questions you may have, commentaries on patient care, or thoughts to share with your colleagues to me at:

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