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The Sternocleidomastoid Syndrome

By Donald Murphy

The sternocleidomastoid (SCM) muscle is one of the most complex in the body. It functions as both a short range (clavicular head) and long range (sternal head) rotator, an upper cervical extensor, a flexor of the cervical spine on the thoracic spine, a lateral flexor, as well as a very important source of equilibrium sense.^{1,2,3} Likewise, when it becomes dysfunctional as a result of containing myofascial trigger points (TPs), it can present a complex clinical picture.

The pain referral pattern of the SCM includes pain over the cheekbone, in the forehead, on top of the head, in and behind the ear, over the chin, over the SC joint, over the forehead, and deep in the throat.³ The throat referral is a commonly overlooked cause of sore throat, often mistaken for pharyngitis. The patient will often feel a fullness in the throat, especially upon swallowing, which feels like a partial obstruction. The forehead referral pattern is one of the very few instances, if not the only instance, where referred pain can cross the midline, as the pain is frequently felt in the contralateral forehead area in a patient suffering from a TP in the clavicular division of the SCM.

In addition to pain, TPs in the SCM can cause autonomic and dysequilibril symptoms. In the sternal division these relate to the ipsilateral nose and eye, and include lacrimation, conjunctivitis, pseudoptosis, blurred vision, coryza, and maxillary sinus congestion. The pseudoptosis is caused by spasm of the orbicularis oculi muscle, which lies within the pain reference zone of this section of the muscle.^{3,4} The clavicular division is the part of the muscle that can produce dysequilibril symptoms. As stated earlier, this is a short range cervical rotator, and as with other short range cervical rotators, such as the splenius capitis and obliquus capitis inferior, is extremely important to our sense of equilibrium.^{4,5} Symptoms from TPs in the clavicular division include postural dysequilibrium, vertigo syncope (when severe), nausea, ataxia, and dysmetria, as well as localized sweating and blanching due to vasoconstriction to the frontal area of referred pain.^{3,6} These symptoms will usually be brought on by sudden turning of the head which will stimulate the trigger points, and can be reproduced by pincer palpation of the muscle. Of course, the dysequilibril

symptoms must be differentially diagnosed from labyrinthine disease, cerebellar disease, posterior column disease, vertebrobasilar arterial insufficiency, cervicogenic dysequilibrium from upper cervical joint dysfunction, and lumbogenic dysequilibrium from lumbar joint and/or muscular dysfunction (rare).

Treatment of the SCM TP can also be a complex matter, as underlying factors can be involved. Ischemic compression, spray and stretch, and/or postisometric relaxation are quite effective, but these must be done with the patient supine in order to ensure that the muscle will be completely relaxed. It is important to look at the upper cervical spine for joint dysfunction, as well as the sternoclavicular joint and the temporomandibular joint (TMJ). Of course, motion palpation procedures should be applied to the entire spine in order to detect joint dysfunction at lower levels as well. The patient's static posture and movement patterns, especially cervical flexion, sit-to-stand, and swallowing, should also be looked at.

Effective treatment of the sternocleidomastoid syndrome can be very rewarding to both doctor and patient, as when it is severe, it can be very distressing. Knowing how to diagnose and treat myofascial pain and dysfunction syndromes is essential in successfully managing these cases.

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