What Your Dentist Should Know About FMS and CMP

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Please read "What Everyone on Your Health Care Team Should Know About FMS and CMP".

Trigger Points and Dentistry

Both fibromyalgia syndrome (FMS) and chronic myofascial pain (CMP) can have a large impact on dental care. It is essential for you to know that your patient may have various muscles constricted by myofascial trigger points (TrPs) in such a manner as to change the occlusion, forcing the mandible to close unnaturally (Fricton 1995). When the TrPs have been treated, occlusal contacts will change (Abdel-Fattah 1997). This can be a disaster if you have equilibrated the occlusion to the contraction of the muscles (Shankland 1996; Abdel-Fattah 1997). Trigger points can be caused by malocclusion, and the reverse is also true.

Equilibration and TrP treatment must take place together or they may be ineffective. Some clinicians and researchers (Abdel-Fattah 1998) believe that degrading of articular discs and bony structures of the temporomandibular joint can result. Patients with FMS and/or CMP may react in unusual ways to bite splints. Sometimes splinting makes things worse. Some patients have bitten through a splint in one night. Often processed, reinforced splints are required. In addition, a medication may also be required at bedtime for the severe bruxers (Shankland 1983). For those with the combination of bruxism, muscle twitches, and cramping, clonazepam may be helpful.

Teeth clenching is a default mechanism of the brain. When it doesn't know what to do to respond to mixed or erratic signals, it may clench the jaw, a sort of twiddling of the cranial thumbs. Look for masseter TrPs and temporalis TrPs. Problems swallowing, chewing pain, jaw clicking, TMJ symptoms, soreness inside the throat, excessive saliva secretion and sinusitis-like pain, drooling during sleep, and choking on saliva can all result from an internal medial pterygoid TrP, which is often overlooked.

Trigger Points and Toothaches

Unexplained toothaches can be caused by several TrPs, chiefly in the temporalis, digastric, and masseter muscles. Each TrP has its own particular toothache pattern. Any kind of immobility can activate TrPs. Usually, a TrP-induced

toothache is intermittent. During long dental procedures, take periodic rests to allow your patient to exercise and relieve the jaw muscles. Find out what symptoms go along with each TrP. For example, anterior digastric TrPs refer pain to the two front lower teeth, and the resulting tooth pain is often mistaken for pulpitis. Unfortunately, many unnecessary endodontic procedures are performed in an attempt to treat the patient's tooth pain, only to have the pain continue after the pulp of the tooth is gone. Anterior TrPs may also cause difficulty swallowing. Ask your patient about localized pain elsewhere in the body. See if you can't find a pattern. If there is inexplicable dental pain, dysfunction, and sensitivity, suspect TrPs. Pain can be referred to teeth from various TrPs in the upper body.

Sternocleidomastoid (SCM) TrPs

The SCM TrPs are responsible for many motor coordination problems. They can cause dizziness, imbalance, neck soreness, swollen gland feeling, runny nose, maxillary sinus congestion, "tension" headaches, eye problems (tearing, blurred or double vision, inability to raise the upper lid, and a dimming of perceived light intensity), spatial disorientation, postural dizziness, vertigo, sudden falls when bending, staggering walk, impaired sleep, nerve impingement, and disturbed weight perception.

Primary TrPs in the SCM often cause secondary TrPs that invoke dental pain. With SCM TrPs, it's quite common for a TrP to develop in the opposite lateral pterygoid muscle, producing malocculsion and perpetuating the TMJ/TrP cycle of pain and dysfunction. People with SCM TrPs often have trouble glancing downward — they become so disoriented that nausea and vomiting result. Chronic dry cough, pain deep in the ear canal, pain to the throat and back of the tongue and to a small round area at the tip of the chin can be part of the SCM TrP package. Localized sweating and vasoconstriction can be a problem, as well as pain in a "skull cap" area of the head. These TrPs can also cause pain at the mastoid process and the deep nuchal line.

Vasomotor Rhinitis

Almost all patients with both FMS and CMP have "vasomotor rhinitis" at least some of the time. That's a runny nose with no "biological" cause. Normal fluid passages may be constricted, so there can be a constant postnasal drip all night, although the membranes of the nose may feel very dry and even bleed.

Facial Pain

One cause of prickling "electric" face pain over the jaw area is from compression of the buccal nerve by the two parts of the lateral pterygoid muscle in chronic bruxers. This sensation is frequently experienced upon waking in the morning or during times of intense stress. This symptom may also be caused by platysma TrPs. Jaw pain and dysfunction are often the fault of one or more masseter TrPs,

although trapezius and temporalis TrPs are often involved. Cutaneous facial TrPs can cause pain in the ears, eyes, nose, and teeth. These TrPs are shallow, and can occur in many places on the face. Jaw pain and dysfunction are often the fault of one or more masseter TrPs, although trapezius and temporalis TrPs are often involved as well. Tell your patients to try acupressure. It may be vital to find a trained trigger point myotherapist to work with you and your patients (Heinrich 1991).

Trigger Points Caused by Prophylaxis

Because FMS is a pain amplification syndrome, even routine prophylaxis can be severely painful for patients with both of these conditions. In FMS, some of the mechanoreceptors have become pain receptors, and central nervous system plasticity plays a large part in amplifying all pain (Russell 1996; Yunus 1992; Bendtsen, Norregard, Jensen, et al. 1997; Lautenbacher and Rollman 1997). Tense muscles from the pain of cleaning may cause the jaw to hurt for more than a week. You might use infiltration of local anesthetic into the gingiva, where most of the scaling is necessary. It's also helpful if there are frequent stops to move the jaw during cleaning and other dental work. Prescribe a muscle relaxer, such as Skelaxin, before and after cleanings, to allow for more stretching of the jaw. Your patients can experience pain even during X-ray; those squares cut right in, especially under the tongue. Have the patient work on the masseter muscle for the next few days, using moist heat and acupressure. Note that many FMS patients cannot tolerate epinephrine in the local anesthetic. Recent research shows that norepinephrine can provoke FMS pain (Martinez Lavin, Vidal, Barbosa et al 2002).

Endodontic Therapy

Root canals can be torture. FMS patients feel pain earlier in the case of a threatened nerve and feel extreme pain longer, often when other patients would feel none at all (Staud, Smitherson 2002). Sometimes it is impossible to eliminate all of the pain. It is vitally important to get all the pulpal tissue out of the tooth as quickly as possible, again allowing the patient frequent rest periods. Patients have reported cases of "myofascial neuralgia" after a root canal, with pain that lasted a month or more.

Prothodontic Treatment

People with these conditions have more than the usual difficulty adjusting to dentures, probably due to the FMS amplification of pain and the alteration in function of the muscles of mastication while chewing, especially with complete dentures. It is important that dental problems be fixed promptly. Dentures must fit, and any imbalances in the occlusion must be corrected, particularly when the patient is relaxed and his/her muscles are not painful. You may have to perform a re-mount procedure when attempting to refine the occlusion. Trigger points on

both sides should be treated because of the interrelation of the musculature and jaw structures.

Preventive Procedures

For the TMJ patient after a dental appointment, applying ice followed by moist heat on the masseter and temporalis TrPs a few times a day may ease the pain. Tell your patient to avoid chewing gum and hard chewy foods, to limit mouth opening, and to chew foods as evenly as possible on both sides of the mouth. Instruct patients to brace their chin and limit mouth opening, even when yawning. Spray and Stretch with vapocoolant to inactivate TrPs is described in detail in the Travell and Simon's Trigger Point Manual, Volume I (Simons, Travell and Simons, 1999). You might even demonstrate Spray and Stretch to the patient's spouse or companion. Ischemic compression using acupressure techniques is also often effective. Prescribing an anti-inflammatory medication the day before, the day of, and the day after the dental appointment can be very helpful. Also, consider prescribing a mild muscle relaxant as well. First discuss current medications. With FMS and CMP, medications may change frequently. If you cannot specifically identify the cause of tooth pain or any other facial pain complaint, do no harm! Don't initiate any irreversible procedure such as endodontic therapy, oral surgery, or equilibration. Also, don't assume the diagnosis is cracked tooth syndrome just because the patient complains of tooth pain from an unknown origin.

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