

Sleep, Pain, TMJ and the Dentist

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There is a paradigm shift occurring in dentistry. We, as dentists, identify and sometimes treat conditions that will affect the health of an individual. A dentist should be able to converse intelligently with the family physician and communicate issues seen in the mouth that are of concern. It is important for the profession as a whole, to recognize and regulate areas that are evolving regarding sleep obstructive breathing, chronic and acute pain and TMD. For these reasons, I have reserved this issue of Oral Health to include these topics that have not been focused on previously.

SLEEP

Dentists are well suited to pick up risk factors for Upper Respiratory Resistance Syndrome and Obstructive Sleep Apnea; conditions that have been linked to metabolic disorders such as hypertension, heart disease, stroke, diabetes and more. Histories of snoring, sleep bruxism and GERD are readily discovered. Signs to be wary of include scalloped tongue, which can be 70% indicative of an airway issue (Todd Weiss MD et al), high palates, narrow dental arches, worn teeth, root decay, tori, pharyngeal architecture, inflammation, uvula, recession, etc. We need to recognize that the mouth is the beginning of the airway and that loss of vertical dimension or loss of posterior teeth can be issues in reducing the airway too. It has been shown that 40% of the time that a dentist delivers a flat plane night guard to a patient who has sleep apnea, that they can make the airway condition 50% worse (Dr. G Lavigne). With this in mind, if you are going to deliver a flat plane mouthguard, it is possible that you may aggravate a pre-existing sleep disorder! It is not our job to diagnose sleep issues, but we should know when to refer and why.

PAIN

Other areas that we have to expand our expertise in, is, the diagnosis and treatment of myofascial pain (see article by Dr. B. Jaeger, pg. 36) and pain science (see article by Dr. B Sessle et al, pgs. 12, 94). After pain from odontogenic origin, myofascial (derived from muscles, ligaments and tendons), is the most common cause of facial pain. Myofascial pain of the head and neck can cause tooth, jaw and headache pain and is usually expressed in a referred location. Much of the pain perceived from the muscles of mastication, is actually secondary, from other muscles, primarily the SCM and trapezius. One must treat the key trigger points in the neck in order to alleviate the satellite trigger points in the muscles of mastication. Simple palpation, range of motion measurements, and knowledge of typical pain referral patterns would be helpful to diagnosis these pains. Diagnosis is paramount to treat and it is necessary to "own" the anatomy of the trigeminal nerve (see article by Dr. W. Shankland, pg. 51), and the head and neck. I have recently read an opinion from the RCDS of Ontario recognizing that extra/intra oral trigger point injections are considered within the scope of dentistry and that an emphasis should be on comprehensive diagnosis and acquiring proper training.

TMJ

Most dentists appreciate that the health of the TMJ can be influenced by the position of the teeth. Even if we had a good understanding of this complicated joint (and most of us don't), how do we deal with TMJ health if we are limited to only considering the teeth? Mariano Racoboda DPT, has spent a lifetime trying to convince dentists that the TMJ is affected equally (50:50), by factors in front (mouth and face) and behind it (neck). Orthostatic balance of the cranium and cervical spine is achieved when there is symmetry and the plane of occlusion is level. Asymmetry can be caused by trauma, habits, posture, professional activities and depending on one's adaptive capacity, can lead to imbalances in both neuromuscular and skeletal systems. We need to look at things such as forward head posture, curvature of the neck, the nose and paranasal sinuses to diagnosis the etiology of conditions of the TMJ. It is necessary to step out of the box we use to examine our patients, or at least expand it.

Dental schools are starting to incorporate some of this knowledge into their curriculums, but it will not happen overnight. We need help to get re-educated with current and evidence based information. Some universities such as UCLA, USC, Tennessee and Tufts offer related programs. USC has just introduced a 36 month distance program. There are also excellent, more extensive "miniresidency" programs offered in Canada by qualified individuals. My own personal journey to educate myself, has lead to several organizations which have set standards in these newer fields. They include the American Academy of Craniofacial Pain, the American Academy of Dental Sleep Medicine, the American Academy of Orofacial Pain, and the International Association for the Study of Pain (IASP). There is a Canadian chapter of the American Academy of Craniofacial Pain (www.aacpcanada.ca) and I recommend checking it out and considering membership in it. **OH**

Photos



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Caption: Janice Goodman graduated from University of Toronto Den...

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