Thoughts on the psychological component of TMJ/TMD syndrome

Sir William Osler, noted physician (1849-1919), is reported to have said, “Listen to the patient; he is giving you the diagnosis.” The patient with temporomandibular joint (TMJ) syndrome or temporomandibular joint dysfunction (TMD) has been a part of dental practice for many years. The complexity of diagnosis and treatment of this condition has confounded and frustrated the dental practitioner and will continue to do so. The crux of this editorial deals with what I consider an important and, often overlooked, component of the unfortunate individual with TMJ/TMD syndrome: the psychological component.

The cause of TMJ disorders is most likely multifactorial. The etiology of muscle spasm, intracapsular inflammation, dentalgia, and various aspects of orofacial pain can commonly be attributed to parafunctional habits. Abnormal dental occlusion is frequently considered an etiologic factor. Dentistry has traditionally turned its attention to the occlusion or mandibular condylar position as a possible means of managing or even curing the TMJ/TMD patient. It should be remembered that irreversibly changing the occlusion can be a drastic therapy fraught with danger. Additionally, malocclusion seems to be equally common in patients with or without TMJ disorders.

Developmental or congenital abnormalities of the face or TMJ, previous trauma, osteoarthritis, and rheumatoid arthritis can be compounding factors in TMJ disorders. Microtrauma secondary to bruxism or other parafunctional habits can lead to meniscus displacement, destruction and breakdown of the supporting structures of the joint, inflammation, or myofascial pain.

As an oral and maxillofacial surgeon, I am referred a multitude of patients with orofacial pain. Commonly this is for preauricular pain, temporal headaches, and posterior mandibular ramus pain accompanied by cervical and shoulder pain. Some of the patients present with internal derangements of the TMJ requiring surgery, but these are a small percentage. We have all seen the “TMJ/TMD patient.”

The importance of proper evaluation and diagnosis cannot be overemphasized. The interview and examination of the patient can provide invaluable clues as to the etiology of his or her pain and dysfunction. Further diagnostic studies can be guided only by the interview, the patient’s history, and the clinical examination. Does the patient have a parafunctional habit, such as bruxism? Does the history suggest the symptoms are a result of an accident? Does the clinical examination suggest an intracapsular or an extracapsular location of the discomfort or disability?

Spending a significant amount of time in the interview can give clues as to the duration of the symptoms, the extent of the disability, the social/family history, and the medical/dental history. Because the emotional component of TMJ/TMD is not only documented in the literature, but also, in our experience with patients, patients should be interviewed as to the anxiety and stress level they have been experiencing.

Reviewing their medications can provide clues as to their mental condition. Are they on a selective serotonin reuptake inhibitor, serotonin-norepinephrine reuptake inhibitor, tricyclic antidepressant, monoamine oxidase inhibitor, serotonin modulator, sedative, or any anxiolytic medication? Have they ever been treated for depression, bipolar disease, or other psychological conditions?

The patient should be asked to describe his or her stress level and the source of the stress. Such questions as “When did the symptoms begin?” “Do you suffer from stress or anxiety?” or “Did any stressful event occur corresponding with the onset of the symptoms?” should be a part of the interview. It may take more than one visit to find the true source of the stress or anxiety, if, in fact, this is the problem.

As previously stated, parafunctional habits can lead to temporomandibular dysfunction. Myalgia is the predominant finding in these patients. The examination
involves palpation of the temporalis muscle at the attachment to the coronoid process and the masseter muscle along its entire extent. The internal pterygoid and external pterygoid muscles are more difficult to evaluate, but valuable when myalgia is diagnosed in these muscles. Frequently, the posterior belly of the digastric muscle is tender in the TMJ/TMD patient. Tenderness in the posterior neck and trapezius muscles suggest tension and spasm. The patient sometimes describes temporal headaches, pain in the posterior neck, shoulders, or occipital region, which is suggestive of stress.

If the examination indicates an internal derangement of the joint or synovitis, computed tomography (CT) or magnetic resonance imaging (MRI) evaluation may be indicated. Osteoarthritis symptoms are best diagnosed with noncontrast CT. Meniscus position is best visualized with a noncontrast MRI. To eliminate maxillary or mandibular pathology, a panoramic film or noncontrast CT may be indicated. Sinus pathology can be evaluated with a noncontrast CT.

Once pathology has been eliminated, the question is “What is the underlying issue with patients suffering from the condition?” If they have a parafunctional habit, why do they and not others have the habit? Is it a dental condition or an emotional condition? Or, is it both? It has been estimated that up to 75% of TMJ/TMD syndrome patients have a psychosomatic component. Life’s stresses, anxiety, depression, perfectionism, anger, obsessive personality, and pessimism may predispose these patients to grind their teeth.

When discussing bruxism with patients, I often relate it to chewing one’s fingernails. They are not voluntarily deciding to grind (or chew their nails); it is a response. This is most likely a response to stress, anxiety, depression, or some other mental health issue.

Mental health professionals are a source of help with these patients once we determine that a mental health concern may be the underlying source of the problem. Mental health professionals have devised tests on abuse, addictions, attention deficit hyperactivity disorder, anxiety/panic disorder, bipolar disorder, depression, eating disorders, parenting personality disorders, sexual disorders, and thought disorders. This complex arena opens a component to TMJ/TMD not often considered by dentistry.

A personal example may illustrate my point. Recently, my assistant and I were interviewing a bright, well-educated young woman for right facial pain. During the interview, we were discussing the psychological component of TMJ/TMD pain. She suddenly broke down, cried, and told us that her grandfather had molested her. She had never even discussed this with her husband. The relationship of this to her facial pain syndrome is unclear, but she was willing to see a mental health professional for an evaluation. She was referred to a psychologist with instructions to return to our office for another evaluation of the facial pain.

Dentistry has properly accepted the leading role in the treatment of the TMJ/TMD patient. Our treatment includes bite plane therapy, transcutaneous electrical nerve stimulation, physical therapy, acupuncture, massage, temporary or permanent occlusal therapy, orthodontic therapy, surgery, analgesic medications, muscle relaxants, biofeedback, therapeutic exercises, and other modalities. Are we treating a symptom and not a cause?

The treatment of the muscle spasm, inflammation, and associated pain is vitally important to the patient. Our responsibility is to eliminate the acute pain, which is often the symptom. We must endeavor to “get to the cause of the problem.”

Not all patients need psychological evaluation and management; however, many can be helped by what dentistry cannot provide. My concern is that the psychological component of this debilitating condition is too frequently overlooked or ignored. Perhaps ignoring the psychological component is what leads to the frustration and difficulty in managing the TMJ/TMD patient.

The literature is remarkably deficient in the evaluation of the relationship between TMJ/TMD syndrome and the psychological status of the patient. This is an area warranting further research.

I wish to thank the editors of Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology for inviting me to present this editorial. The American College of Oral and Maxillofacial Surgeons is dedicated to the advancement of the education of oral and maxillofacial surgeons and to dentistry in general. By expressing our thoughts and encouraging investigation, we can benefit our patients and each other professionally.

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