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EDITORIAL

The Emerging Specialty of Orofacial Pain

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Hunger, fear, and pain are among the many human conditions that continue to defy a clear definition. All are sensory, cognitive and emotional experiences that can only be described by the sufferer.

Pain can affect the young or the old, the strong or the weak, the man or the woman and can cross any social barrier. It knows no borders and respects no authority but its own.

Dentistry has assumed the responsibility of challenging pain, at least regarding facial pain. Orofacial Pain is an evolving field in dentistry and medicine responsible for the diagnosis and management of complex, chronic head and facial pain disorders. The study of pain, including orofacial pain, has entered into an era of scientific validation and discovery that could not have been conceived of only a few years ago. We have advanced from our earliest concepts of pain to the threshold of even greater understanding.

While our understanding of orofacial pain, and pain in general is in its infancy, there are vast bodies of work that have been accomplished over the centuries that first began with ancient physicians and philosophers. We have traveled from the time of Hippocrates to an understanding of the Cartesian blend of a higher spirit and the "machine" of the body in which Descartes postulated a cause-and-effect theory to his understanding of pain perception. Descartes' cause-and-effect account of pain was directly opposite of the traditional understanding of pain in the world during his time, but this new and radical definition of pain was widely accepted. It was compatible with the developing intellectual trends in science. In fact, Descartes' pain model was accepted for hundreds of years, and not until recently was a newer, more accurate description offered by the International Association for the Study of Pain; "An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage [1]." Still, the definition of pain remains elusive as a subjective phenomenon.

It was in 1934 that James Costen, MD, published "A Syndrome of Ear and Sinus Symptoms Dependent Upon Disturbed Function of the Temporomandibular Joint [2]." From that point on the temporomandibular joint became the focal point from which, it was thought that, all facial pain evolved. However, contrary to Costen's observations, not all orofacial pain is of masticatory or odontogenic origin. We now have an understanding of the evolution of action potentials transduced as a result of tissue damaging or potentially tissue damaging stimuli. We have learned of central sensitization and pain modulation. We recognize the protective role of acute pain and of the often life altering effects of chronic pain. We are now aware of many primary and pathological conditions that precipitate the suffering of our patients. Where dentistry once presumed that all head and facial pain was caused exclusively by toothache, malocclusion or mechanical temporomandibular disorders, we now are aware of neurovascular and neuropathic conditions as well as musculoskeletal orofacial pain disorders, many of which can be amplified by emotional control of physiological functions. Provided with an accurate diagnosis, treatment has a better chance of success.

As with any theory, the scientific method of study must prevail. While Costen's clinical observations were that most orofacial pain complaints were related to a jaw imbalance, this theory was based on the anatomy, biomechanics and

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pathophysiology as he understood them in 1934; however, it was less than accurate. Despite this, he introduced what would come to be referred to as temporomandibular disorders.

Since Costen there have been many successful treatment paradigms focusing on the biomechanics of jaw functions and occlusal alignment. However, there have also been treatment failures based on limited knowledge of alternate pain mechanisms and aggressive, and an often dogmatic approach to treatment. Numerous occlusal adjustments, rehabilitations and TMJ surgeries may have been performed based on opinion rather than evidence or a clear diagnosis. It is said that "The aim of argument, or of discussion, should not be victory, but progress [3]." Failures led to alternate diagnoses and treatments. Unfortunately, failures also led to more dogmatic approaches to treatment.

Orofacial Pain is now an emerging specialty recognized as the discipline of dentistry focused on the assessment, diagnosis and treatment of patients with complex chronic orofacial pain and dysfunction disorders, oromotor and jaw behavior disorders, and chronic head, neck, and facial pain, as well as the pursuit of knowledge of the underlying pathophysiology and mechanisms of these disorders. Diagnosis and treatment outcomes can only improve at a rate equal to our advances in the knowledge of pathophysiology.

Specifically, orofacial pain includes the diagnosis and treatment of neuropathic orofacial pain disorders, neurovascular orofacial pain disorders, complex regional pain syndrome, complex masticatory and cervical neuromuscular pain disorders, primary headache disorders, pain from complex temporomandibular joint disorders, burning mouth, pain secondary to orofacial cancer and AIDS, orofacial dyskinesias and dystonias, orofacial sleep disorders, and other complex disorders causing persistent pain and dysfunction of the orofacial structures.

Over the past 20 years, there have been many developments in the field of chronic pain and specifically orofacial pain that have led to improvements in our understanding of the epidemiology, pain mechanisms, etiology and diagnostic and treatment strategies for chronic orofacial pain disorders. This knowledge has resulted in the development of safe and effective treatments for our patients.

In the United States, over three million people seek treatment for chronic orofacial pain each year. Universities have responded to this need by establishing educational programs and orofacial pain clinics in nearly every dental school, and 2 year advanced education programs in orofacial pain can be found in accredited dental schools throughout the United States and around the world. The American Academy of Orofacial Pain, along with its Sister Academies in Europe, Australia/New Zealand, South America and Asia, represent clinicians, academicians and researchers from around the globe who have dedicated themselves to the relief of the pain and suffering of our patients. Certainly, India's contribution to this world wide consortium would be most welcome.

Chronic, complex orofacial pain disorders are a significant challenge to the dental practitioner. Many patients present with, or are referred to the dental practitioner for the evaluation of pain complaints often inappropriately thought to have dental etiologies. We are now aware that many chronic and acute pain disorders not only mimic pain of odontogenic causes, but also are all too frequently inappropriately treated with dental remedies, unnecessary medications, and invasive procedures. It is our responsibility to evaluate and diagnosis these disorders correctly in order to affect an appropriate course of treatment. Success can only be anticipated when treatment is based on a sound scientific footing, an understanding of pain mechanisms and evidence based treatment. Currently, the American Dental Association, through the Commission on Dental Educations, has accredited nine post-graduate programs in the United States as meeting educational standards for teaching these principles at a level equivalent to other specialties in dentistry. Several more accredited programs are anticipated in the near future. More than 25 Orofacial Pain dentists graduate from these programs every year. The American Academy of Orofacial Pain supported the establishment of an examination and credentialing process for orofacial pain dentists through the development of the American Board of Orofacial Pain. Students completing a two year post-graduate program in orofacial pain are eligible to take this examination. Nearly 300 dentists have successfully challenged this rigorous process and are focusing their careers in orofacial pain.

William Olser, the famous 19th century physician and educator once said, "The good physician treats the disease, the great physician treat the patient who has the disease." We must all endeavor for greatness, not for ourselves but for our patients. We can no longer be complacent with unproven and anecdotal treatments that rely on opinion rather than evidence. We must attack the science of pain with vigor and learn what we can to help our patients and our profession.

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