Masticatory Myofascial Pain Disorders

Maria F. Hernández-Nuño de la Rosa, Patricia Guerrero, Shuruq A. Alturki, and Steven J. Scrivani

Masticatory myofascial pain disorders (MMPD) are a common group of orofacial pain conditions affecting the muscles of mastication, with headache and cervical disorders as well as chronic widespread pain and psychosocial disorders being common comorbid conditions. As their pathophysiology is multifactorial in nature, a multimodal and interdisciplinary approach should be considered. Overall treatment goals include decreasing pain and disability, increasing mandibular range of motion, and improving quality of life. This article describes a complex case exhibiting common characteristics of MMPD while additionally reviewing the literature on classification, pathophysiology, and evidence-based treatment planning.

Surgical Treatment of Temporomandibular Joint Derangement: 30-Year Follow-Up of Temporomandibular Joint Discectomy, a Case Report and Literature Review

Tore Bjornland and Peer Mork-Knutsen

The improvement in diagnostic accuracy, improvement of the endoscopic equipment, better selection of patients for open TMJ surgery, and increased focus on research and education are promising for the treatment of the group of patients with TMJ derangements. In the future, prospective randomized clinical trials need to be performed to give the clinician guidelines as to which type of intervention should be chosen in a particular patient base on accepted criteria for diagnosis and treatment of TMJ derangement.

Nonsurgical Management of Temporomandibular Joint Arthropathy

Briana J. Burris, Roxanne Bavarian, and Jeffry R. Shaefer

Temporomandibular joint (TMJ) arthropathy is an umbrella term that may be applied to mechanical dysfunction or disease of one or both TMJs. This article presents a case of a 24-year-old woman who presented with symptoms of TMJ pain and jaw locking as an example to provide evidence-based recommendations for conducting a patient evaluation, initiating a diagnostic workup, formulating an assessment, and instituting various non-surgical modalities for the treatment of TMJ arthropathies.
Burning Mouth Syndrome
Shehryar Nasir Khawaja, Omar F. Alaswaiti, and Steven J. Scrivani

Burning mouth syndrome (BMS) is a rare chronic neuropathic pain condition characterized by recurring burning pain or dysesthesia in the absence of any local or systemic causes of symptoms. The exact pathophysiology of BMS is unknown, but recent research suggests a medley of neuropathic, endocrinological, and psychosocial elements. This article presents a case history and reviews the epidemiology, diagnostic criteria, clinical features, diagnostic investigations, pathophysiology, and management of BMS.

Continued persistent facial pain despite several surgical interventions in the temporomandibular joint
Annika Rosèn, Espen Helgeland, and Torbjørn Ø. Pedersen

This article describes a woman in her forties who spontaneously developed facial pain 19 years after double-jaw orthognathic surgery. The focus of her pain was the left side of the face, including the temporomandibular joint (TMJ). Conservative treatment was initiated, including several occlusal splints, in addition to injections with local anesthesia, botulinum toxin, and corticosteroids, with limited effects. Surgical treatments with arthroscopy and discectomy, and ultimately a TMJ prosthesis, improved the patient’s joint function but did not reduce pain. The question is whether the degenerated joint was due to progression of the original disease process or to multiple surgical procedures.

Persistent Idiopathic Dentoalveolar Pain: Is It a Central Pain Disorder?
Gary M. Heir, Sowmya Ananthan, Mythili Kalladka, Manvitha Kuchukulla, and Tara Renton

The International Classification of Orofacial Pain (ICOP) describes idiopathic pain as “unilateral or bilateral intraoral or facial pain in the distribution(s) of one or more branches of the trigeminal nerve(s) for which the etiology is unknown. Pain is usually persistent, of moderate intensity, poorly localized and described as dull, pressing or of burning character.” Several diagnoses are included in the ICOP Idiopathic pain section, burning mouth syndrome and persistent idiopathic facial and dentoalveolar pain. This article, with a representative case presentation, briefly discusses common features that may lead to a common central cause for a variety of peripheral complaints.

Posttraumatic Trigeminal Neuropathic Pain in Association with Dental Implant Surgery
Tara Renton and Fréderic Van der Cruyssen

Posttraumatic trigeminal neuropathy in association with dental implant surgery is preventable, and this should be the emphasis for all clinicians considering this treatment for a patient. Once the nerve injury and posttraumatic neuropathy with or without pain ensues, there is very little the clinician can do to reverse it and the high pain and permanency of the neuropathy will have a significant functional and psychological impact on the patient. Immediate implant removal is required, and home check should be routine for all cases. International diagnostic criteria are available and should be implemented in everyday practice.
Trigeminal Neuralgia
Shehryar Nasir Khawaja and Steven J. Scrivani

Trigeminal neuralgia (TN) is a rare neuropathic pain disorder characterized by recurrent, paroxysmal episodes of short-lasting severe electric shock-like pain along the sensory distribution of the trigeminal nerve. Recent classification systems group TN into 3 main categories depending on the underlying pathophysiology. This article will present a case history and review the epidemiology, diagnostic criteria, classification, clinical features, diagnostic investigations, pathophysiology, and management of TN.

Pathology Mimicking Orofacial Pain
Shaiba Sandhu and Shruti Handa

A case of a 64-year-old woman is reported, who developed new-onset pain over a preexisting area of right mandibular fullness. Clinical examination, MRI, and fine-needle aspiration cytology confirmed the diagnosis of a benign parotid gland tumor-pleomorphic adenoma, which was treated by total parotidectomy with complete removal of the tumor. When evaluating a patient with orofacial pain, oral health care providers should be cognizant of all potential differential diagnoses, especially in the setting of red flags such as persistent or enlarging facial swelling/fullness.

Head and Neck Cancer-Related Pain
Shehryar Nasir Khawaja and Steven J. Scrivani

Pain is a common and most debilitating symptom of head and neck cancers (HNC). The prevalence of pain in HNC is nearly 70%. There are no universally accepted classification or diagnostic criteria for HNC-related pain, and currently, HNC-related pain is classified based on the underlying pathophysiological mechanism, the location of the tumor, and the protagonist of pain. The clinical presentation of HNC-related pain varies and can be similar to primary pain disorders. The management of HNC-related pain primarily consists of pharmacotherapy. However, in some cases, interventions may be needed. This article will present a case study and review the epidemiology, diagnostic criteria and classification, clinical features, pathophysiology, and HNC-related pain management.

Posttraumatic Stress Disorder and the Role of Psychosocial Comorbidities in Chronic Orofacial Pain
Roxanne Bavarian, Michael E. Schatman, and Ronald J. Kulich

This article presents the case of a patient with persistent right-sided jaw pain with a history of multiple temporomandibular joint surgeries in the setting of persistent widespread body pain, the causes of which were fibromyalgia and osteoarthritis with multiple joint replacements, as well as psychological diagnoses of PTSD and depression. Despite extensive treatment from her orofacial pain team in combination with neurology and neurosurgery, her severe pain persisted, likely due to the consequences of untreated PTSD and depression, which led to avoidance of activities that would exacerbate her pain and thus to further disability and emotional deterioration.
Management of Episodic Migraine with Neuromodulation: A Case Report

Thiago D. Nascimento, Dajung J. Kim, Conrad Chrabol, Manyoel Lim, Xiao-Su Hu, and Alexandre F. DaSilva

Migraine is a highly prevalent neurovascular disorder that affects approximately 15% of the global population. Migraine attacks are a complex cascade of neurologic events that lead to debilitating symptoms and are often associated with inhibitory behavior. The constellation of severe signs and symptoms during the ictal phase (headache attack) makes migraine the third most common cause of disability globally in both sexes under the age of 50. Misuse of pharmaceuticals, such as opiates, can lead to devastating outcomes and exacerbation of pain and headache attacks. A safe and well-tolerated non-pharmacological research approach is high-definition transcranial direct current stimulation over the M1.

Challenges for the Dentist in Managing Orofacial Pain

Reny de Leeuw and Diego Fernandez-Vial

This presentation describes a patient’s extensive and expensive search for relief of pain in the orofacial area. The journey includes many diagnostic errors and failed and likely unnecessary treatments. A systematic approach to problem definition and rule-out reasoning for the differential diagnoses based on the International Classification of Orofacial Pain is described. Conservative treatment was implemented with satisfactory results. Common pitfalls in the management and treatment of complex pain patients are discussed.

Language Access and Orofacial Pain

Roxanne Bavarian, Rachel Harris, and Nicole Holland

Clear and effective communication is vital to quality patient care. More than 66 million Americans (21.5%) speak a language other than English at home, with more than 25 million (8.2%) speaking English “less than very well.” Addressing language differences in the orofacial pain setting is of utmost importance to care quality, treatment outcomes, and overall health equity. In the case presented, language-related communication challenges affect the diagnosis and management of a patient with orofacial pain. This case highlights the significance of language discordance in the clinical setting and demonstrates the need for greater language access in the orofacial pain field.