

Editorial

Importance of Publishing Papers Dealing with Temporomandibular Disorder and Masticatory Muscle Pain

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Temporomandibular disorders (TMDs) are the most common or facial pain conditions affecting musculoskeletal and joint tissue. TMD is the second most frequent cause of orofacial pain after dental. Signs and symptoms of disorder are numerous. Some of them are related to temporomandibular joints and masticatory muscles but patients can also experience symptoms of headache, ear pain, and tinnitus. Although, not every symptom is accompanied by pain, pain itself is the most common feature of disorder and main reason for patients to seek medical help. Pain is usually followed by restricted mandibular movement, and sounds like grinding, crunching, clicking, or popping from the temporomandibular joints (TMJ) during jaw movement [1].

Although TMD is not life-threatening disorder, it can influence the life quality because the symptoms, especially pain, can become chronic and difficult to manage. It is estimated that about 20% to 30% of the adult population is affected to some degree. Usually people reporting symptoms of disorder are between 20 and 40 years of age, and it is more prevalent in females than in males [2].

The etiology of TMD is poorly understood, but it is recognized to be multifactorial. Although, role of psychosocial stressors, parafunctions, occlusal interference and other risk factors has been examined in numerous studies results are contradictory and there is disagreement as to the relative importance of these factors with each other [3].

Masticatory muscles pain seems to be the most prominent patient complaint in disorder [4]. Masticatory myalgia characterized with pain and tenderness seems to cover half of overall TMD. Despite the fact that masticatory muscle pain is very common the underlying mechanism is still not well understood. As a result of complex and multifactorial etiopathogenesis the patients reporting signs of disorder are usually not adequately treated. Even there is a general lack of evidence for any treatment in TMD, and no widely accepted treatment protocol exists, most common treatments encompass occlusal splints, medications with NSAID, laser or ultrasound therapy.

Evidences of inflammation in myogenous TMD are not certain, although some previous studies report the muscle tissue damage and inflammation induced by parafunctional habits, and an association between release of inflammatory mediators and pain of masticatory muscles [5]. Recent studies on temporomandibular disorder point out the importance of changes in pain pathways in disorder. It seems that patients with TMD can exhibit altered central nociceptive processing, which is thought to be triggered from a peripheral source possibly from masticatory muscles, as nociceptive inputs from inflammatory muscles are a potent generator of CNS wind-up that starts at the skin and culminates in hypersensitivity response from the dorsal horn and brain. The involvement of neural mechanisms in etiopathogenesis of TMD is supported by the fact that unilateral inflammation of the masseter muscle in rats and muscle pain in humans is able to induce a bilateral and widespread mechanical allodynia and hyperalgesia [6]. Since ion channels regulate neural excitability, at both peripheral and central level, they are proposed to be involved in nociception of deep craniofacial tissues. Accumulating results suggest importance of various ion channels like TRPV1, ATP receptor P2X, ASIC in orofacial pain conditions [7,8].

However, recent years have seen an improvement in our understanding of the etiopathogenesis of TMD, providing important new information about the molecular events in pain processing from deep orofacial tissues the underlying mechanism is still not well understood and there is a need for researches dealing with mechanisms of temporomandibular disorders. The *Journal of musculoskeletal disorder* stands ready to publish original researches dealing with TMD.

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