

## Factors Bearing on Causes and Management of Orofacial Pain

It is a feature of most orofacial pain conditions that their cause and underlying mechanisms are unclear, although risk or precipitating factors have been identified in many cases. This lack of a clear cause complicates diagnosis and treatment, and the clinician managing patients with these conditions needs to be mindful of the numerous influences that can affect the expression of the patients' pain. This issue of the *Journal of Orofacial Pain* contains articles bearing on etiologic and risk factors and management approaches to several orofacial pain conditions.

The first article, by Fischer et al, focuses on pain related to temporomandibular disorders (TMD) at the young end of the age spectrum and the role that head injury may play in the development of TMD. While injuries in young people are a major cause of disability, the extent to which TMD symptoms are associated with prior head injury is unclear. Fischer et al have documented that in adolescents there is indeed a modest association of prior head injury with self-reported or clinically diagnosed TMD pain. A related topic was investigated in the article by Hernández et al. They characterized jaw muscle electromyographic (EMG) changes in simulated low-velocity rear-end impacts and found that some of the jaw-closing muscles showed increased EMG activity with increased impact; some gender differences were also documented. The authors speculate that the increased EMG activity may serve to protect the masticatory apparatus.

Adult populations were the focus of 2 studies that examined the prevalence of TMD signs or orofacial pain symptoms in adults in Finland (Rutkiewicz et al) and Hong Kong (McMillan et al). The Finnish study has confirmed most earlier reports that TMD signs are more common in women and additionally reveals that they may be more common in elderly subjects. Further studies are needed to determine whether this finding is a reflection of the aging process, increased chronic disease in the elderly, or changes in oral health and dentitional state. McMillan et al document that more than 25% of adult Hong Kong Chinese report orofacial pain symptoms, which is in line with prevalence estimates in Western countries; however, only a low proportion of these people seek professional treatment. The authors speculate that this may be related to specific culturally based pain behaviors or more effective coping strategies.

Coping with craniofacial pain and the role of cultural factors was also the subject of some of the papers reviewed in the literature abstracts section of this issue of the journal. Other papers reviewed in this section emphasize the importance of addressing psychosocial and behavioral factors in managing patients with craniofacial pain conditions, an aspect often overlooked by dental professionals caring for these patients. Of relevance to this also is the revealing account provided in the article by Wolf et al of the negative feelings that patients with chronic orofacial pain may have about consultations they have received for their condition. The study emphasizes the importance of proper communication between the dental health professional and chronic pain patients. One of the papers reviewed in the literature abstracts section also documents the limited communication skills displayed by a sample of medical students.

Managing patients with chronic orofacial pain is also the topic of the article by Ikawa et al, although their particular focus is on a somatoform pain disorder. They provide evidence supporting the utility of amitriptyline for this condition, but it is noteworthy that several of their patients required higher doses than is usually considered necessary for the treatment of depression.

The article by Ernberg et al deals with 1 of the biological factors involved in peripheral nociceptive mechanisms. It notes the possible role in myalgia of serotonin (5-HT) in muscular tissues and shows that while administration of 5-HT (1000  $\mu\text{mol/L}$ ) into the masseter induces pain, it does not appear to affect local blood flow. 5-HT has previously been reported to alter blood flow, and indeed, 5-HT-related ischemia has been implicated in the production of pain, and so this new finding suggests that 5-HT may induce muscle pain by mechanisms other than ischemia.

Thus, this issue of the journal draws attention to several factors, some often overlooked, of significance to the causes and management of orofacial pain conditions. They deserve the close attention of all readers of the *Journal of Orofacial Pain*, especially those involved in the management of orofacial pain patients.



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